ROM

MAGAZINE *of the* ROYAL ONTARIO

Fall 2015 **$5.95** CAN

volume 48:number 2
2015 fall

Why Leeches Suck! p. 10

Erasing History p. 20

Wildlife Photographer of the Year p. 28

THE COLOUR *and* CULTURE *of* MEXICO

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Display until December 15, 2015

EXHIBITION
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¡VIVA MEXICO!

ON UNTIL MAY 23, 2016

Visit this special exhibition today!

Read about the art of weaving Mexican textiles, p. 16

Pictorial *sarape* woven in the 1940s or 1950s, probably in the town of Guadalupe, Zacatecas. This example offers a romanticized vision of rural life on the great *haciendas* (rural estates).

PRESENTED BY

MÉXICO

This exhibition is generously supported by the Burnham Brett Endowment for Textiles and Costume and the Gwendolyn Pritchard Fraser Endowment Fund.

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Volume 48, Number 2

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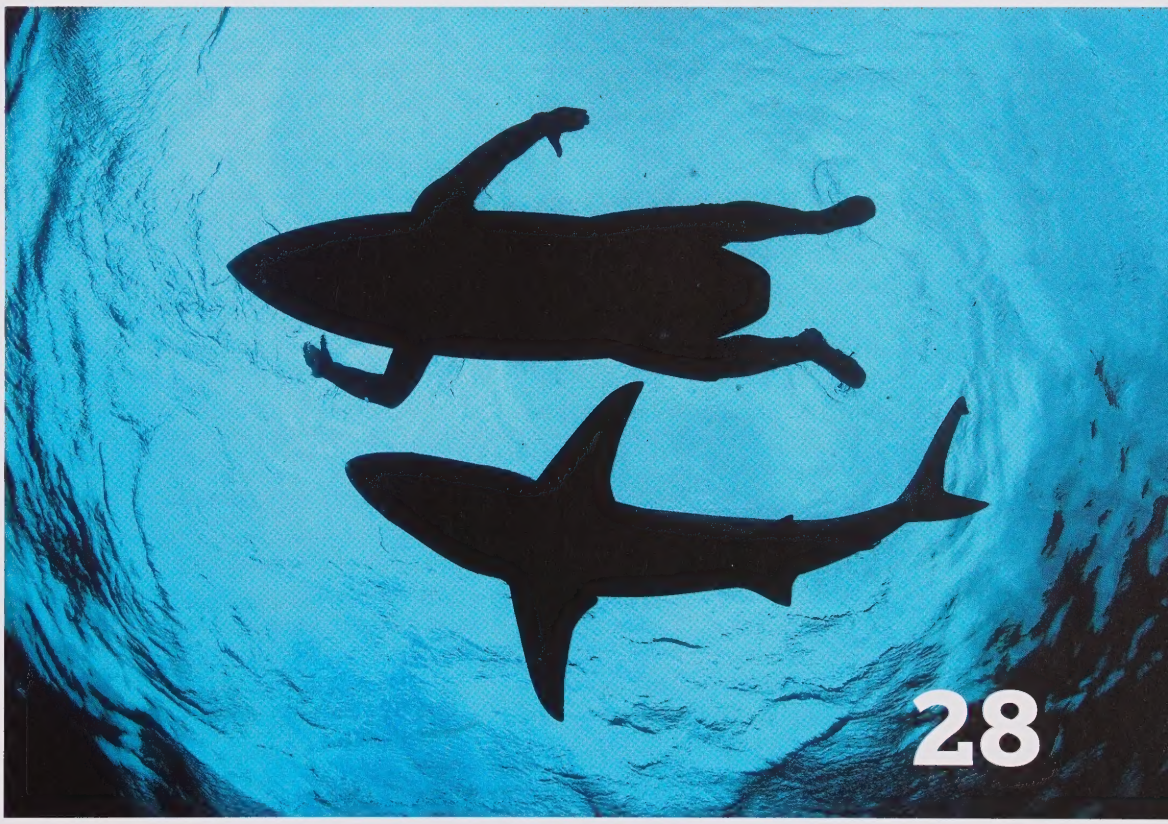

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Clemens Reichel
ASSOCIATE CURATOR
ANCIENT NEAR EAST

Clemens has excavated and surveyed extensively on sites in Turkey, Syria, Jordan, and Egypt. His interests focus on complex societies and the evolution of urbanism. Following the looting of the Iraq Museum in 2003, he coordinated the creation of an online database of artifacts likely to have been stolen.

Sascha Priewe
MANAGING DIRECTOR
CULTURE CENTRES

As Managing Director of three Centres of Discovery, Sascha is charged with sharing the collections and curatorial research in archaeology, art history, anthropology, and conservation. Prior to the ROM, he was Curator of Chinese and Korean collections at the British Museum.

Chloë Sayer
CO-CURATOR
OF *¡VIVA MEXICO!*

Chloë is an internationally-renowned authority on Mexican material culture. She brings to the study her 40 years of field research in Mexico, unique contextual photographs, and an extensive publication record. She is co-curator of the current *¡Viva Mexico!* exhibition at the ROM.

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Tuesday: 10 a.m. to 5:30 p.m.

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Youth (4 to 14 years): $14
Students (under 18) and Seniors (65+): $15.50
Adults: $17

Feature exhibitions are an additional $11 for adults, $10 for seniors/students, and $6 for children.

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Interwoven Connections

Are museums more than just ardent collectors of stuff?

ON MY CALENDAR...

NEW!

Wildlife Photographer of the Year

NOVEMBER 21–MARCH 20

See this spectacular exhibition of the world's best wildlife photos!

Pompeii: In the Shadow of the Volcano

UNTIL JANUARY 3, 2016

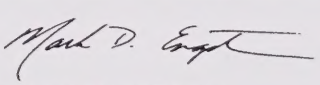
Be captivated by this exhibition of an ancient culture frozen in time.

What are museums? The staid definition is that museums are institutions devoted to acquiring, preserving, studying, interpreting and displaying objects of scientific and cultural interest. I also like to believe that our museum is a lively setting where, surrounded by the past and present, people can learn, exchange and debate ideas, realize the connections of shared history, explore alternative futures, and have fun! But at its core, a museum is about stuff—and the ROM has lots of it! Visitors are often surprised to learn that the 35,000 objects on exhibit are just the tip of the collections iceberg, compared to six million cultural artifacts and natural history specimens in storage! In terms of its holdings, the ROM ranks in the top ten of North American museums and is a significant player on the world stage. But why in the world do we have so much stuff? Are ROM curators thinly-disguised hoarders?

The answer lies in the interwoven connections of history. Objects and specimens are objective placeholders of memory. They are concrete evidence of cultural invention, human creativity, evolution in action, and environmental change. The more points we can collect on the starburst of cultural and evolutionary trajectories, the better we can understand ourselves and the environment that supports us.

Perhaps an example will help. One day I took my mother-in-law to see our collection of mammals and opened a series of drawers containing arctic lemmings. Being no shrinking violet, she demanded to know why we had more than one. I had been studying how new species of animals evolve and lemmings were an ideal subject. In North America, these snowshoe-footed rodents inhabit even the remotest stretches of tundra, despite the fact that most of this vast region was buried under kilometers of ice as little as 10,000 years ago. Interestingly, lemmings display incredible variation in numbers of chromosomes (the huge molecules of DNA that carry our genes). In mammals, different numbers of chromosomes usually signal the presence of distinct species and most of these "chromosome races" must have evolved since the last ice age. Perhaps new species were evolving before our eyes! To understand what these differences actually meant to the lemmings, I collected samples from across the Arctic, examined variation within and among populations, and brought some back to establish breeding colonies. I found that unlike other mammals, most of this variation didn't matter one whit to lemmings, and in the Arctic there were only three, rather than nine, distinct species. My mother-in-law, bored with my explanation merely huffed, but I had made new discoveries about Arctic biogeography, genetic mechanisms underlying evolutionary change, and the origin of diversity of species. And I now have a series of specimens of lemmings that forever document their distribution, physical variation, and genetic differences—important harbingers in this era of rapid climate change. One lemming would have told me little more than the fact that lemmings existed. And so collections are built.

How can you find about all the ROM's stuff? This year we launched a project to unite the information on the Museum's vast collections into a single comprehensive database that we will publish on our website. This five-year project will start with our World Cultures collections, and soon you will be able to begin browsing everything from haute couture fashion to Egyptian mummies. These assets will be the foundation of the new digital experience of the Museum—where you will be able to search our collections online and in our galleries. These are exciting times at the ROM: we can finally show everyone our laundry (it's clean) and lemmings, make our collections fully available, and transform the museum experience in the process. o



MARK ENGSTROM
INTERIM DIRECTOR AND CEO

Photos: Mount Vesuvius courtesy iStock; Wings of summer ©Klaus Tamm.

What's on at the ROM

Upcoming exhibitions and events

★ Free with ROM general admission

OCTOBER

VESUVIUS ENSEMBLE

OCTOBER 13 • 7 P.M.

Members: $45

Enjoy an exceptional evening at the ROM with music inspired by Pompeii as well as an after-hours tour of the *Pompeii: In the Shadow of the Volcano* exhibition.

DIGGING THE ROM: AMAZING ARCHAEOLOGY ★

OCTOBER 17–18

Time to get down and dirty with archaeology at the ROM this Big Weekend as we celebrate International Archaeology Day.

ROM SPEAKS COLLECTING SACRED OBJECTS: DETRITUS TO TREASURE, MEMORY, AND THE MUSEUM

OCTOBER 20 • 7 P.M.

Members: $18

Dr. Michael Willis reflects on the question of the "sacred object" within a museum.

NOVEMBER

10TH ANNUAL EVA HOLTBY LECTURE ON CONTEMPORARY CULTURE

NOVEMBER 10 • 7 P.M.

Members: $18

Discover how Sheikha Hoor Al Qasimi is injecting contemporary approaches to make Sharjah a globally recognized creative hub.

ROM SPEAKS THE ENDURING LEGACY OF ROME

NOVEMBER 17 • 7 P.M.

Members: $18

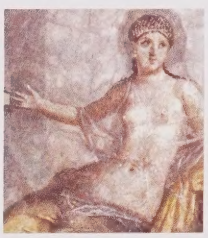
Kenneth Lapatin from the Getty Museum joins us to explore the impact of Rome on the modern psyche.

BURNING BRIGHT: LIGHT AND TRADITION AT THE ROM ★

NOVEMBER 21–22

Light is an important part of our world, used to celebrate many festive traditions. Join us and community partners for a luminous launch of the holiday season.

DECEMBER



ROM SPEAKS WHAT HAPPENS IN POMPEII, STAYS IN POMPEII: SEXUALITY IN THE ROMAN WORLD

DECEMBER 8 • 7 P.M.

Eaton Theatre • Members Price: $18

Go behind closed doors in ancient Pompeii with Paul Roberts.

ROM FOR THE HOLIDAYS ★

DECEMBER 26–JANUARY 4

Enjoy special programming and celebrate the holidays with us!

rom.on.ca/holidays

FIND OUT MORE

Be it a kids' event, an enthralling talk, or a special weekend event, the ROM has something for everyone. For the latest information, visit **rom.on.ca/whatson** or call 416.586.5797. Details are subject to change.

Alien Rocks, On-line Learning, Chinese Exports, and Events!

MARTIANS AMONG US

A rock collection that's truly out of this world!

One of the major tasks of the NASA Apollo missions in the 1970s was to bring back rock samples, which they did in abundance, returning with well over 380 kilograms. And the upcoming robotic OSIRIS-Rex mission to the asteroid Bennu, set to launch in 2016 (which ROM Earth Sciences staff are involved in), also aims to return with material. However, there are rocks from another planet here on Earth that did not come from a mission to space. They are meteorites. Most importantly, they are from the planet Mars, the only rocks we have from another planetary body in our solar system. The ROM has one of the most important collections of these rare rocks in the world. These are some of the most common questions we get about them ...

How do we know they're from Mars?

More than 30 years ago, scientists were puzzling over some unusual features in a meteorite that had been found in Antarctica. They noted that there were dark veins and patches in this meteorite, which turned out to be glass. What made this glass different was that it contained small vesicles—cavities—which, upon close analysis, turned out to contain gases. As luck would have it (and there is often a good degree of luck in science), the two Viking probes launched by NASA landed on Mars in 1976 and measured the martian atmosphere. It turned out that the gases extracted from the mystery meteorite where an exact match for gases such as neon, nitrogen, argon, and carbon dioxide that were measured on Mars.

How did they get here?

The energy released during the impact of a large meteorite or asteroid onto a planetary body is unimaginably extreme and can be in the order of millions of pounds per square inch. If the impacted body is small enough, this energy can literally blow material off the surface and launch it into space. The most likely mechanism for there being martian rocks on Earth is that they were blown off the martian surface during large impacts. With a great deal of luck, they made it to Earth and were discovered.

How many are there?

More martian meteorites are discovered almost every year, so the total number changes regularly. But currently there are just over 100 martian rocks on our planet.

What are they made of?

Just as with Earth rocks, not all martian rocks are the same. There are three basic types: shergottites, nakhlites, and chassignites. These names come from the type localities, the place where the first piece was recognized: Shergotty, India; Nakhla, Egypt; and Chassigny, France. These three basic types vary in their mineralogical composition but the interesting thing is that, despite being from another world, they are surprisingly similar to terrestrial rocks.

Why are they important?

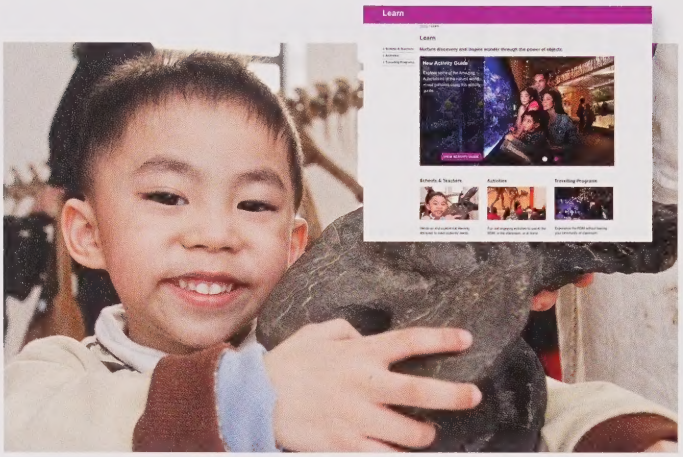
Samples of materials from other worlds allow us to better understand Earth. Plus, having the opportunity to study how another planet formed gives us a reference point, something we can compare, contrast, and test our theories against. And of course, as talk increasingly turns to sending humans to Mars or even colonizing it, having some idea of what to expect—geologically speaking—before you get there would be a good thing. If a colony is to survive there, they will eventually need to extract all their resources from the martian surface. Is that possible? The rocks are our only way to find out. ○

IAN NICKLIN works with rocks, minerals, and meteorites as a technician in the ROM's Centre of Earth and Space.

Meteorites were acquired by the generous support of the Louise Hawley Stone Charitable Trust.

WHAT'S A LEARNING PORTAL?

Easier than ever to enrich your museum visit



Are you a teacher, student, or family looking for engaging and fun activities and resources to use before, during, and after your visit to the Museum? Look no further than the ROM Learning Portal at **rom.on.ca/learn**.

Teachers can use the Learning Portal to plan and book a school visit, access resources to help students and chaperones be active participants in their museum learning, download Gallery Trails for students to work on during self-guided time, and find classroom activities that help reinforce key curriculum concepts.

Families looking for a way to enhance their Museum visit and extend the fun at home can find app-based tours with scavenger hunts, creative at-home activities, and links to videos, blogs, and more from ROM experts.

The Learning Portal is constantly growing and evolving. Look out for the following:

- An orientation video to help prepare students for their school visit
- New app-based tours for school groups to use during self-guided time
- An interactive timeline of Canadian colonial history through an Indigenous perspective
- Online games created by developers at ROM Game Jams
- New Gallery Trails and activities that reflect changing museum content

Bookmark the Learning Portal's homepage as it will be updated when new content is available. For the latest news on what's in the works, updates, and discussions find us on twitter **@ROMLearning**. Tweet us your photos of the ROM Learning Portal activities and resources in action! o

This project is generously supported by the G. Raymond Chang Children's Education & Family Programming Fund.

SARAH ELLIOTT is a learning content producer at the ROM as well as a freelance writer who specializes in writing about science.

THE WORLD OF POMPEII SIGNATURE SERIES EVENTS

Explore Italian culture at the ROM through this series of extraordinary signature events. Experience the tastes and sounds of the region with the best experts Italy has to offer.

October 13
VESUVIUS ENSEMBLE

Join us for an extraordinary performance of traditional Italian music inspired by the land of Pompeii. La Scala-trained tenor Franceso Pellegrino is accompanied by a host of traditional Italian instrumentalists. Enjoy exclusive after-hours access to *Pompeii: In the Shadow of the Volcano*.

Performance presented by the Istituto Italiano di Cultura.

November 4
KITCHEN CONVERSATIONS: NEAPOLITAN GASTRONOMY
Guest: Ernesto Iaccarino, Grand Chef, Relais & Chateaux, awarded 2 Michelin stars

Celebrate the world of Neapolitan gastronomy with Michelin Star Chef Iaccarino from the Campania region. His menu will bring to life the cuisine du terroir of the Sorrentine coastline of the Neapolitan region. Chef Iaccarino's visit is sponsored by the Italian Consulate General.

Presented by the Istituto Italiano di Cultura.

December 1
ITALIAN EXTRAVAGANZA

Celebrate the closing of *Pompeii: In the Shadow of the Volcano* with a gastronomic extravaganza of Neopolitan food and drink. We will take you on a journey of the best wines and food that Italy has to offer. Enjoy exclusive after-hours access to the exhibition.

Pricing: $50 General / $45 Members
3 Event Ticket: $150 General / $135 Members
ALL IN TICKET (Limited Quantities): $235 General / $210 Members

Photos: Vesuvius Ensemble by Scarlet O'Neill. Chef Iaccarino from dissapore.com. Pizza © iStock.

NOW ON DISPLAY
Made in China

LOCATION:
Herman Herzog Levy Gallery

Left: Hand-painted wallpaper, early 19th century.

Right: Oil portrait of a Chinese lady, 19th century.

Made in China: Cultural Encounters through Export Art, an exhibition primarily based on ROM collections, explores the cultural encounters between China and the West by placing the "Made in China" trademark in a historical context. Nearly 100 artifacts that were once part of an export art market enthusiastically consumed by eighteenth- and nineteenth-century Europeans and North Americans are displayed.

Like many products made in China today, these works made centuries ago functioned as souvenirs and decorative art for foreigners. For instance, the large hand-painted wallpapers were custom-made for decorating the walls of luxury homes in European countries.

Another highlight of the exhibition is a group of pith paper paintings (*tongcao hua*). Few museums in North America have such pieces in their holdings. This rare art form was materially demanding and technically complex. Just as the West had a commercialized appetite for Chinese export art, Chinese artists and artisans responded strategically to Western tastes and demands in terms of subject matter, style, and technique. The romanticized nature of the topic in pith paper paintings—Chinese customs, daily life, drama scenes, landscapes, and exotic plants and insects—never failed to evoke a fantasized image of China for Western eyes.

In the process of creating its trademark of "Made in China," Chinese export art was indeed both a commercial and cultural product. As a result China cultivated an appropriated image of itself via its active interaction with the West. o

WEN-CHIEN CHENG is the Louise Hawley Stone Chair of Far Eastern Art and **JIANFEI HE** is the James M. Menzies Chinese Research Fellow in the World Cultures Department of the ROM.

Photos: Wallpaper, gift of Mr. Noah Torno, ROM East Asian Collection; ROM 2003.90.3. Oil portrait from the George Crofts Collection, ROM East Asian Collection; ROM 920.21.58.1.

FNL LINEUP

Friday Night Live is back at the ROM this Fall. Each week features a unique theme and a special performance by select artists. Doors open at 7 p.m. and the evening wraps up at midnight.

Avoid the lineup and buy your tickets early at **rom.on.ca/fnl**.

October 2
Nuit ROM

October 9
Thanks Canada

October 16
Dig It!

October 23
C'est Fashion

October 30
Day of the Dead

November 6
Remembrance

November 13
Superstition

November 20
Light

November 27
Volcanic Bash

*FNL is a specially ticketed event for adults 19+. ROM general admission tickets are not valid for FNL.

ROM FRIDAY NIGHT LIVE
PRESENTED BY Ford

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Jungle Experiments

This classroom has no desks, chalkboard or wifi

BY BURTON K. LIM

Deep in the rainforest of Guyana in northern South America is an unlikely setting for a laboratory of learning. For the past five years, a study has been examining not only the resilience of tropical ecosystems to climate change, but also testing the educational capacity of students in a jungle classroom.

A mix of two dozen university and high school students from the United Kingdom, the United States, and Canada are embedded in a remote region of South America to help a team of international scientists study the biodiversity of one of the most pristine environments in the world. While development and progress usually means that wilderness areas become urbanized, Guyana has 80 per cent of its natural habitat still intact, with indigenous people continuing traditional lifestyles in the interior of the country.

> "The Guyanese rainforest acts as a hedge against global warming"

Since 2011, I have been compiling data on bat species diversity and relative abundance that is contributing to an ambitious long-term monitoring program to track the health of the Guyanese rainforest—a large carbon sink that acts as a hedge against global warming. Other biologists studying large mammals, birds, insects, amphibians, reptiles, and plants have been assembled by Operation Wallacea, an organization based in England devoted to conservation science. Our goal is to establish baseline information that will be useful in identifying unusual trends in variation that may indicate changes to the environment.

We introduce students to tropical ecosystems with classroom lectures combined with hands-on training of scientific field methodology at the Iwokrama Forest nature reserve and the nearby Amerindian village of Surama in central Guyana. In exchange, they assist us in documenting the high levels of biodiversity that are present and necessary for the rainforest to flourish. It is about more than just not cutting down the trees,

Above: Operation Wallacea students waiting in anticipation of freeing an owl caught in one of the bat nets during the night.

Opposite above: Student Nathan Van Cooten releasing a yellow-shouldered fruit bat after identifying and recording data.

Opposite below: Amerindian guides from Surama village in Guyana cutting through a tree fall vine tangle impeding boat travel.

Photos courtesy Burton Lim.

which can be easily monitored by satellite imagery, but rather ensuring the habitat is alive with animals. If the wildlife is hunted out or the waters poisoned by illegal mining, the forest will not survive long for future generations.

Even after almost three decades of fieldwork, I am still leery of the possible dangers lurking in tropical jungles that are home to the overwhelming majority of the millions of species that live on Earth with us. I am sure every single one of the students searched the Internet beforehand about the perils of malaria and the consequences of bites from venomous snakes. They will consider themselves lucky to only experience botfly larvae feeding under their skin or chigger infestations that drive you mad with itching. But how do you get the chance to get up-close with nature by untangling a bat from a net, identifying it, and then letting it fly off from your hand?

The potential for exciting discoveries such as finding a species unknown to science or contributing to the conservation of nature keeps drawing me back time and time again. One of the main objectives of the Operation Wallacea monitoring study in Guyana is to understand the variation of biodiversity. By standardizing our field methods, we can identify when there are significant changes in the community structure of organisms and try to explain the causes that may have contributed to any shifts in trends. Are they natural phenomena attributable to regular climatic patterns such as El Niño effects, or are they human-induced disturbances related to global warming?

> "If the wildlife is hunted out, the forest will not survive long"

Expeditions to Guyana are some of the more logistically, physically, and mentally challenging. One muddy, pothole-infested road leads south from the populated coast to the sparsely inhabit hinterland. It's only about 300 kilometres to Iwokrama Forest, but it takes 12 hours to get there, crammed into minibuses that drive what seems to be way too fast for the conditions. We spend almost a month together in close quarters at several river-side bush camps accessible by boat through minefields of rocks and treefalls, sleeping in hammocks enveloped in mosquito nets under plastic tarps. Not a typical summer vacation for these intrepid students.

A sense of accomplishment for having survived the jungle prevails as we make it back to civilization in the capital city of Georgetown. The students have gleaned an intangible learning experience in field research, and we have compiled valuable baseline data on natural variation in tropical biodiversity that will be important for assessing potential effects of global climate change. o

BURTON K. LIM is an assistant curator of Mammalogy in the Department of Natural History at the ROM.

Bring some bats home!
Check out Burton's five awesome facts about bats in *Burton & Isabelle Pipistrelle: Out of the Bat Cave*. Available at the ROM Store.

Members Price: $4.50.

Photos courtesy Burton Lim.

Not All Leeches Suck

Wading waist-deep with ROM's Biodiversity team

BY SEBASTIAN KVIST

During the 2015 BioBlitz of the Don River watershed, a small team of ROM experts ventured into the ponds and lakes with a very specific mission: to find and document the occurrence of blood-feeding leeches. I had the pleasure of leading this group as the volunteer "Taxon Lead"; my name is Sebastian Kvist, and I'm the newest curator at ROM Biodiversity, specializing in leeches under the broader banner of Invertebrate Zoology.

Searching for leeches may sound like a futile and/or daunting endeavour to most dry-land non-masochists, but leeches are actually much more abundant than you may think. The subclass *Hirudinida*, which includes leeches and some leech-like parasites of freshwater crawfish, includes more than 650 recognized species (yes, 650!) and its representatives truly define the word "cosmopolitan." Leeches have been recorded on every continent except Antarctica, in every major body of water, and in marine, freshwater, and terrestrial ecosystems. To make matters worse (or better in the case of the ROM leech hunters), the preferred habitats of different leech species show remarkable disparity; from the deep sea to the tops of mountain ranges, and, of course, in Ontario lakes and ponds. Encouraged by this prospect, the ROM experts waded into the water, waist-deep and bare-legged, in order to attract the blood-feeders. Most blood-feeding leeches will be attracted to movement, temperature, CO_2 emissions on your breath (for the land-dwelling forms), and the inevitable amino acid leakage from your skin. Whereas cuts and bruises are normally bad news when performing scientific fieldwork, leech collectors will greatly benefit from a bit of blood in the water. In essence, leech collectors often let the critters come to them, not vice versa.

The North American medicinal leech

Leeches have been used for medicinal purposes for millennia, dating back to ancient Egypt and the beginning of civilization. Throughout the ages, leeches have been used for human phlebotomy (bloodletting) under the presumption that replacing a large amount of blood will cure a variety of ailments such as hysteria, obesity, and an imbalance of the four humours (blood, phlegm, choler, and melancholy). By modern accounts, it seems as though each continent is occupied by its own set of blood-feeding leeches that have been used for medicinal purposes. For North America, this involves *Macrobdella decora*, a beautifully- coloured large leech with a green dorsal side, spotted with black and orange, and a bright orange belly. The utility of leeches for bloodletting stems from their saliva, which includes a potent cocktail of anticoagulation factors—blood thinners—that keep the blood flowing in and around the incision wound during extended periods of feeding. In fact, the most potent anticoagulant known, hirudin, is active in the femtomolar range and was first extracted from the European counterpart to the North American medicinal leech.

Above: Leech collections involve bare-legged wading and rock-flipping. Here, Sebastian Kvist is collecting the North American medicinal leech.

Left: Leech traps are used for attracting both hematophagous and macrophagous leeches. Here a North American medicinal leech, Macrobdella decora, is feasting on the attractant, beef liver.

Photos: Above: by Alejandro Oceguera-Figueroa. Left, photo by Danielle de Carle.

The cocktail of anticoagulants is so powerful that some individuals have been known to bleed for 36 hours after being bitten by the leech. With a growing understanding of the properties of these anticoagulants, leeches have become more authoritatively used in modern medicine, and the U.S. FDA approved leeches as medical devices in 2004. Most often, leeches are used to relieve venous congestion following digit or flap replantation surgery, during a critical time interval when the flow of blood *to* the replanted tissue is far superior to the flow of blood *from* the tissue.

Back to the story

So what about the leeches in the Don River? Some of you may be happy to know that the North American medicinal leech was nowhere to be found, but you would be celebrating prematurely. A total of seven different leech species were found during the intense collection efforts, and some of them were blood-feeders. But wait, aren't all leeches blood-feeders? No, leeches have devoloped three main feeding strategies during hundreds of millions of years of evolution. Some leeches are macrophagous, suggesting that they swallow their prey whole. Others are liquidosomatophagous, indicating that they feed on haemolymphal fluids from glands of their prey. And then, of course, some leeches are hematophagous or blood-feeding. All three kinds were found in the Don River. Besides, I wouldn't want to give you a false sense of security—the same team of experts found a healthy population of the North American medicinal leech only 45 minutes northwest of Toronto, in a 450-m^2 pond on private property. This is not stated to make you fearfully stare out the window at your own backyard pond, but rather to inspire you to seek out the biodiversity with which we so closely co-exist. Flip a rock in the water—you might find a leech and there's only a one-in-three chance that it will feed on you! ○

SEBASTIAN KVIST is an associate curator of invertebrates at the ROM, and an assistant professor at the University of Toronto.

Photos by Sebastian Kvist.

Above: Some leeches lay cocoons but little is known about the morphology of leech cocoons. ROM scientists are currently trying to rear leech cocoons.

Left: University of Toronto M.Sc. student Danielle de Carle with a large bloodfeeding leech.

10 Facts About Leeches

1. Anticoagulants derived from leeches enabled the first human dialysis in 1920 during which researchers lined the thin flow tubes with leech salivary extracts.

2. In 2010, scientists described the leech *Tyrannobdella rex*, reassuring everyone that *T. rex* is alive and well, and feeding up noses of children in Peru.

3. The best way to remove a feeding leech from your skin is to leave it there—the leech will feed for about 20–30 minutes then drop off of its own accord. Leeches are not known to transmit a lot of parasites, but when they are stressed, they may regurgitate the blood into the incision wound, which may create an infection. One very good way to stress a leech is to put lemon or salt on it.

4. The largest anticoagulant repertoire that has been discovered within a single leech included 22 different anticoagulants or anticoagulation-related proteins, and was recorded from the terrestrial Asian leech, *Haemadipsa interrupta.*

5. Some leeches have teethed jaws that move in a serrating motion to create an incision wound to enable blood-feeding, while other leeches possess an eversible proboscis that they insert subcutaneously into their prey.

6. When collecting leeches, scientists often use a device made from two aluminum plates and some raw liver as a trap.

7. In the late 1800s, Napoleon's field surgeon prescribed leeches as a cure for almost all ailments. As a result, European populations of medicinal leeches were almost depleted. Documents state that the surgeon, Dr. Broussais, used several million leeches in a single year.

8. In 2007, scientists discovered that most of the leeches that were used in medicine were not the European medicinal leech, *Hirudo medicinalis,* as previously thought, but a close relative, *Hirudo verbana.*

9. When jawed leeches feed on you, the three jaws leave an incision wound in the shape of a Mercedes Benz logo—or a peace sign, if that is your preference.

10. The largest known leech species is the Giant Amazonian leech *Haementeria ghilianii,* which can grow to be more than 40 cm long. The species lives in Amazonia where it feeds on large amphibians and reptiles such as anacondas and caymans.

Restoring Pompeii

Curator Stefano Vanacore discusses the technical challenges and ethical issues of restoring the casts of Pompeii

BY DOUGLAS THOMSON

Curator Stefano Vanacore (above right) Vanacore says the restoration team developed a method of dealing with the casts as if they were a living human being.

I recently sat down with Stefano Vanacore, Director of Conservation for the archaeological site at Pompeii. Vanacore is the head curator for the cast restoration project and he and his team spent the last year working in Pompeii on a massive restoration project of 86 casts from a total of 103.

Vanacore also accompanied the casts of Pompeii (along with other artifacts) to the ROM to help prepare this exceptional exhibition for its Toronto debut. Vanacore met with me for a few minutes as the rest of the team unpacked the artifacts. We discussed the casts, the ethics, and the technical challenges of the restoration project. During this interview, Nur Bahal, a colleague at the ROM, kindly translated my questions from English into Italian for Vanacore.

Q: I understand that because of ethical concerns surrounding the treatment of the famous casts (they are, after all, the remains of real people), Pompeii has stopped loaning casts to travel with exhibitions outside Pompeii.

A: Yes, this is true. We treat these casts as if they are living human beings. We have developed a method of dealing with them as we would with any living human being.

Q: Can you give me an example of what that means? Is it a matter of gentleness?

A: Yes, but apart from the gentleness, there is more to it ... We have, for example, a pair of casts that are joined together. The head on one of the casts is joined with torso of another. But as we attempted to restore them, we wanted to make sure that the parts that are making up the casts actually belong with that body, and are not just assembled from random bones that were found in the area. So we hired an archaeologist who is [an] expert in this kind of work (matching bones) to help us confirm that casts are reconstructed properly.

Q: Much like how a dinosaur is recovered?

A: Yes, they are experts in this process.

Q: You also mentioned another example?

A: There is another famous cast, of a child sitting on top of an adult (we have always presumed them to be mother and child). So to confirm this, and to determine the relationship between the two casts, we are doing DNA analysis to ensure we understand that relationship accurately. We are doing this work not just as restorers, but also as archaeologists.

Q: Are they mother and child?

A: The DNA material from these casts has been sent to England for testing just a short time ago, but the results of that testing are not back yet, so I can't say for sure. The DNA will tell us much more as well. It will tell us not only about the family relationships, but also about overall health, and via analysis of the teeth (inside the casts), more about disease and even diet.

Q: I assume there are also technical challenges to the restoration?

A: We were successful in finding and identifying the very first casts made by Giuseppe Fiorelli in 1864, and the plaster that cast is

Above: Some older casts have deteriorated over time and required significant restoration. Various methods are used for restoration, including this hydration process that looks very similar to a hospital intravenous system.

Right: A 3-D laser measuring system is used to create a computer model of the original cast. Then the cast can be "printed" using a 3-D printer, rendering a resin copy.

made from is very different than the casts made in the 1990s for instance. It's harder, and is much firmer than modern plaster. They are all made of plaster, but the details and style are always the same. Only the material is different. Whether they were made in the 1800s, or the 1980s they are very similar.

Q: Because original casts are not travelling outside Pompeii, I understand you are using 3-D printing now.

A: Yes, we use a 3-D scanner to render the casts on a computer, then we render the casts in three dimensions using a special resin. Five of the casts that have come to Toronto have been created this way. ○

DOUGLAS THOMSON is the content manager of ROM publications.

See *Pompeii: In the Shadow of the Volcano.*
On now until January 3, 2016.

Photos courtesy of Studio Yanatori.

Chronicling Canada

Sadia Zaman captures the essence of the Museum narrative

BY SHEEZA SARFRAZ

Sadia Zaman
MANAGING DIRECTOR
Canada

Past Positions
2011 to 2014
Director, Original Program Development
CBC News and Centres

2007 to 2010
Executive Director
Women in Film and Television, Toronto

1992 to 2007
Director, In-House Production
VisionTV

Education
2011
Certificate,
The Media Management Executive Education Program,
Rotman School of Management,
University of Toronto

1999
Journalism Fellow,
Massey College,
University of Toronto

@szamancanada

The ROM's new Managing Director of Canada has always been dedicated to the art of storytelling. Sadia Zaman has worked with networks such as TVO, VisionTV, and CBC, where her compelling storytelling has earned her and her teams five Gemini Award nominations and two wins. She is also the editor of *At My Mother's Feet, Stories of Muslim Women*, a book that sold out of its second printing.

Not one to shy away from topics that seem thorny or dangerous, she has documented a wide range of issues, from contentious religious practices to conflicts in other countries. Armed with a journalism degree, one of Sadia's earliest assignments transported her to South Africa to cover the lead up to the historic 1994 elections that ended apartheid. She and her crew found themselves caught in the midst of a violent protest when their media convoy took a wrong turn. "It was a time of such heightened tensions," she recalls. "It was terrifying because for a moment we didn't actually know if the crowd was going to part and let us through or attack the vehicle. I'll never forget that moment." One of the four Canadians journalists who were awarded the prestigious Southam Fellowship in 1998, Sadia has continued to strive to make complex issues relevant and accessible. She has been honoured for her leadership and was chosen as one of six female media leaders in Canada to take part in the Creative Leaders Program in 2012.

At the ROM, Sadia's goals are to keep that thread of storytelling in motion. She hopes "to highlight the evolving story of Canada, regardless of whether that story is told through an artifact, a virtual experience that engages all the senses, or an online community. Canadian artists and curators are exceptional storytellers. Whether it is a painting by Paul Kane of First Nations people in the Canadian West or the contemporary art installation of a Victorian mourning dress made out of synthetic hair by Karin Jones, there is a powerful narrative at the ROM that binds everything together." A piece that intrigues her in the ROM's Canadian galleries is the Freedom Box that was presented to Vice-Admiral Charles Saunders during his stopover in Dublin. The Vice-Admiral was returning to England after the British had captured Quebec City. "The notion of freedom conveyed by this box is fascinating," she says. A freedom box would be given to visiting dignitaries, containing papers granting them municipal citizenship.

The stories within the ROM are something that everyone can connect to, no matter their age or background. Sadia believes that the Museum is not just a tourist location, but a destination for conversation, and shared experiences. "It's about building communities," she adds.

Though most of Sadia's energy nowadays is focused on planning the ROM's celebration for Canada's sesquicentennial in 2017, she is looking forward to the ROM's panel discussion on Samuel de Champlain this Fall. Join her on September 22 at *Champlain: The Man, The Explorer, The Enigma* for an in-depth discussion on the man who is considered to have founded New France. o

SHEEZA SARFRAZ is project coordinator for ROM Press and production editor of *ROM* magazine.

A freedom box presented to Vice-Admiral Charles Saunders.

Freedom box, ROM 988.103.1.1–2

Where in the World Are They?

Who is where ... and why ... among our international curatorial team

U.S.A.

Kim Tait
CURATOR
Teck Endowed Chair of Mineralogy

From August 2014 to May 2015, Kim was a Visiting Scholar at the Scripps Institution of Oceanography in San Diego, working in the Scripps Isotope Geochemistry Laboratory alongside Dr. James Day. Using martian meteorites from the ROM's collection, she has been studying the compositions, and complex mineralogy of the rocks to understand how Mars formed and evolved to its present-day state. The state-of-the-art laboratory, plus the ROM's collection, has allowed her to compile a large dataset of martian geochemistry for an upcoming publication.

GUYANA

Burton K. Lim
ASSISTANT CURATOR
Mammalogy

During the summer, Burton completed the fifth year of an annual long-term biodiversity-monitoring project organized by Operation Wallacea, an international conservation research organization, to track biodiversity changes in Guyana. With the assistance of students from around the world, they caught 145 bats representing 28 different species. Preliminary results indicate that even with standardized methodology, there is a lot of natural background variation in species diversity and relative abundance among both sampling sites and years. Read about his notes from the field on page 8.

BRAZIL

Jadson de Oliveira
POSTDOCTORAL FELLOW
Mycology

Earlier this year, Jadson and Dirce Komura, a PhD student at the National Institute for Amazonian Research (INPA) in Manaus, conducted the very first exploration of fungal diversity along the banks of the Araca and Demini rivers, which are two major tributaries of the Rio Negro in the Brazilian Amazon. Jadson is now conducting research at the ROM with Mycology Curator Jean-Marc Moncalvo and technician Simona Margaritescu to describe and determine the genetic characterization of several species new to science.

This collection belongs to the mushroom genus *Schizophyllum* but its identity is still unclear.

Photos: Kim Tait by Jennifer Reimer; Photography Jadson de Oliveira by Dirce Komura; Mushroom by Brice Nonaka.

HOW DO I SEE IT?

On until **May 23, 2016**

rom.on.ca/vivamexico

The Fabric of Mexico

The woven garments of Mexico have stood the test of time

BY CHLOË SAYER

Recent decades have seen escalating sales throughout Mexico of synthetic materials and factory-made clothing. The national apparel industry represents one of the largest manufacturing sectors in the Mexican economy, yet it is continually threatened by imports (often pirated) from China, India and Vietnam. Another challenge is the rapidly growing demand for used clothing, known as *ropa de paca*. Collected in vast quantities in the United States, often by charitable organizations, it is smuggled into Mexico and sold as contraband. Sociologists and economists have aptly described Mexico's thriving black market, which undermines official manufacturing and vending outlets, as "globalization from below."

In spite of the availability of inexpensive and industrially produced "fashion" items, however, a surprising number of people remain committed to making and using non-commercial textiles. This is especially true in indigenous societies. Much has been written about the cultural thread that links indigenous communities with previous generations. According to the late Mexican anthropologist Guillermo Bonfil Batalla, five centuries of "stigma, violence, and rejection" have not obliterated Mesoamerican civilization.

Strong Traditions

Trade and increased contact with the modern world have brought change and a measure of prosperity to San Pablito, yet there is still a sense of shared identity. Young men who seek work in Mexico City or the United States return, if possible, for important religious festivals. Young girls may be inspired by magazines and television programmes to wear high heels and to cut their hair, yet most still prefer to wear traditional dress during significant events.

For Humberto Trejo González, who lives in San Pablito and cares passionately about his culture, the reason is clear: "Women in San Pablito believe that their clothing is beautiful. They understand its value. When they look at the texture of a woven skirt or the embroidery on a blouse, they know the work is good. They know the effort and the skill required. That is why they continue to wear this clothing. They are proud to wear something so well made and so fine. They are proud to wear something that belongs to us."

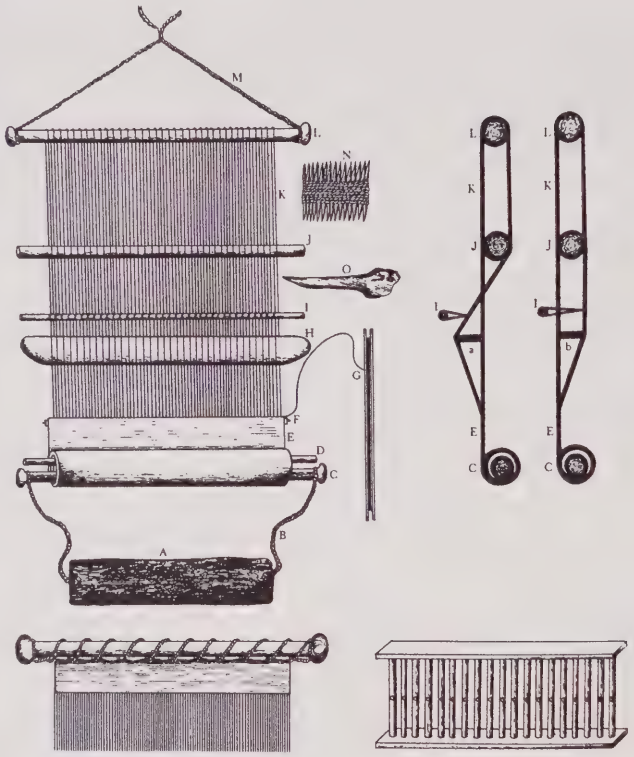
As these words suggest, the physical processes used to make indigenous clothing are largely responsible for its aesthetic appeal. Many garments are simple to construct and require little or no tailoring; their visual interest and elegance lie with the fibres used, the depth and range of colour, the design motifs that embellish the cloth, and additional forms of ornamentation such as fringing. The raw materials and the techniques for creating indigenous clothing originate in both the Old and New Worlds. Mexico's varied geography and climate foster a wide range of trees, shrubs and plants, many of which provide the elements for clothing.

Unique Dyes

Since their invention in the nineteenth century, chemical dyes have superseded most natural colourants. Natural dyes are still used in a few communities, however. Traditional dyeing methods require great skill and patience, with operations taking from several hours to several days. While some dyes stain fibres directly, others are fixed by mordants such as alum or urine. There is also a third category requiring oxidization. Weavers rarely measure their ingredients. They rely instead on experience and intuition.

Opposite: Section of a small cotton bag, woven on a backstrap loom in 2008 by Crispina Navarro Gómez of Santo Tomás Jalieza, Oaxaca.

Above: Otomí (Nyûhû) family group in San Pablito, Puebla. The ceremonial male shirt is embroidered with beads. Women wear wrap-around skirts with a wide sash.



Top: Diagram of a backstrap loom

A backstrap
B cord attaching backstrap to loom
C front loom bar
D rolling stick
E web of woven cloth
F tenter attached with thorns to the underside of cloth
G weft thread wound on to shuttle stick or bobbin
H batten
I stick heddle attached with thread to selected warps
J shed stick
K warp threads
L back loom bar
M cord attaching loom to tree or post
N comb
O bone pick

The warp threads are wound directly round the end bars, and will need to be severed when the weaving is completed.

Top right: The basic principle of weaving. The warp threads, seen in side view, form the shed (a) and the counter shed (b).

Bottom left: When warp threads are attached with cords to the end bars of the loom, cloth with four selvages is produced. Here the weaver has woven a heading section.

Bottom right: Rigid heddle used in a few sash-weaving villages instead of a stick-heddle.

The weaver works with two sets of alternate warp threads, separated by the shed stick. The cross keeps each warp thread in place. The weft (wound round a shuttle stick) is carried through this opening (termed the counter shed), passing over and under the same warps as the shed stick. The warps that lay behind and the shed sticks are then pulled forward to make a second opening. A stick heddle, attached by loops of thread, raises the warps of this second set. They then return to their original position. (© David Lavender)

Inorganic substances found in natural deposits play a vital role. Iron oxide, gypsum, and ochres are mixed with other elements to provide stable dyes. In the Tzotzil community of San Juan Chamula, weavers boil dark wool with mud and herbs to achieve an intense black. Localized Mexican plant dyes come from flowers, fruits, roots, leaves, and lichens; reddish tones may be obtained with brazilwood. Indigo, valued for the blue-black colouring it provides, is the plant species most widely used by contemporary dyers. Known by botanists as wild indigo (*Indigofera suffruticosa*, or *Indigofera anil L.*), this native shrub grows in tropical and subtropical regions, and was keenly traded in pre-Conquest and colonial times.

Weaving Clothing

Although dyeing is sometimes done by men, traditional forms of weaving are most often the preserve of women. After the Conquest, men adopted the European-style treadle loom with alacrity; women, by contrast, retained the older backstrap loom or *telar de cintura*.

The backstrap loom, sometimes known as a stick loom, has no rigid framework. Setting it up is a complicated process: the length of the warp, which runs between two end bars, determines the length of each textile, while the number of warp threads determines its width. Because backstrap looms are easily rolled up and transported, weavers often work outside the house where there is space and light.

Home-woven garments are rarely fitted or tailored in the Western manner. Assembled from squares and rectangles of cloth, they depend on the weaver's skill for their texture and patterning. By manipulating the threads in various ways, different cloth constructions are achieved. Plain weaving, often referred to as tabby, operates on an over-one-under-one principle, but even this basic sequence is open to variation, with weavers creating warp and weft stripes or checkerboard designs. If thick or additional weft threads are used, raised lines are created in the cloth.

Expert Artists

Until the 1960s, Zapotec weavers in Santo Tomás Jalieza supplied women throughout the Valley of Oaxaca with warp-patterned waist-sashes, which were needed to secure locally made wrap-around skirts. When these heavy skirts lost popularity, this market declined; now weavers in Jalieza earn a living from the sale of bags, belts, and items for the home. Born in 1963, Crispina Navarro Gómez has won numerous awards for the intricacy of her work. On weekdays, in the large open space behind her house, she tethers her loom to a tree. As predetermined warps "float" over and under groups of weft threads, cloth is formed with raised designs. Time-honoured motifs include birds, animals, and *danzantes* (dancers with feathered headdresses), but Crispina also elaborates her own designs.

Top Left: Tzotzil weaver preparing her warp in San Juan Chamula, Chiapas. (© Chloë Sayer 1978)

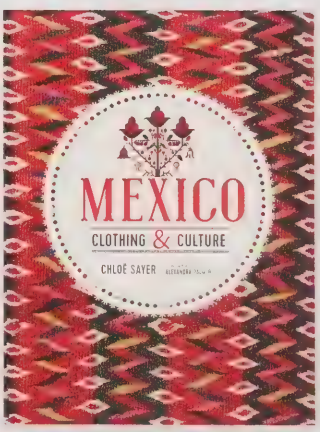
Top Right: Crispina and Inés Navarro Gómez weaving with backstrap looms in Santo Tomás Jalieza, Oaxaca. They sit on *petates* (palm mats) on the ground.

Bottom: Francisca Rivera Pérez at work in Cuetzalan in the Puebla highlands. To create open-meshed cloth of this type, Francisca crosses her warp threads by hand and anchors them with the weft. (© Chloë Sayer 1986)

The actions of expert spinners, dyers, and weavers can seem effortless, even mechanical, yet these skills require intense concentration and a sense of vocation. Francisca Rivera Pérez is an eminent gauze-weaver from the highlands of Puebla. "I remember struggling to learn my craft. When I was a girl, we were all made to spin. Our mothers would ask the Virgin Mary to help us. But it was weaving that really interested me. One day, when my mother was out, I borrowed her loom and tried to weave. Of course I made mistakes. She unpicked what I had done. She slapped me, for wasting her time and her thread. But I never gave up. I started weaving properly when I was 10. I wanted to copy the designs that others were making. Now I invent variations of my own."

Although Francisca learned Spanish as an adult, she grew up speaking only Náhuatl. Because her formal education was minimal, she neither reads nor writes. Yet her grasp of mathematics is breathtaking: she sequences her threads with unerring precision, creating open-meshed cloth that has the delicacy of lace. In the small town of Cuetzalan, where she now lives with her family, the shops display machine-made fabrics and mass-produced clothing. By continuing to hand weave her own cloth, however, Francisca is keeping alive the legacy of México profundo. The threads on her backstrap loom link her with countless previous generations—they are the continuous threads of indigenous culture. o

Excerpted from *Mexico: Clothing & Culture* by Chloë Sayer, coming soon from ROM Press. Members Price: $35.99



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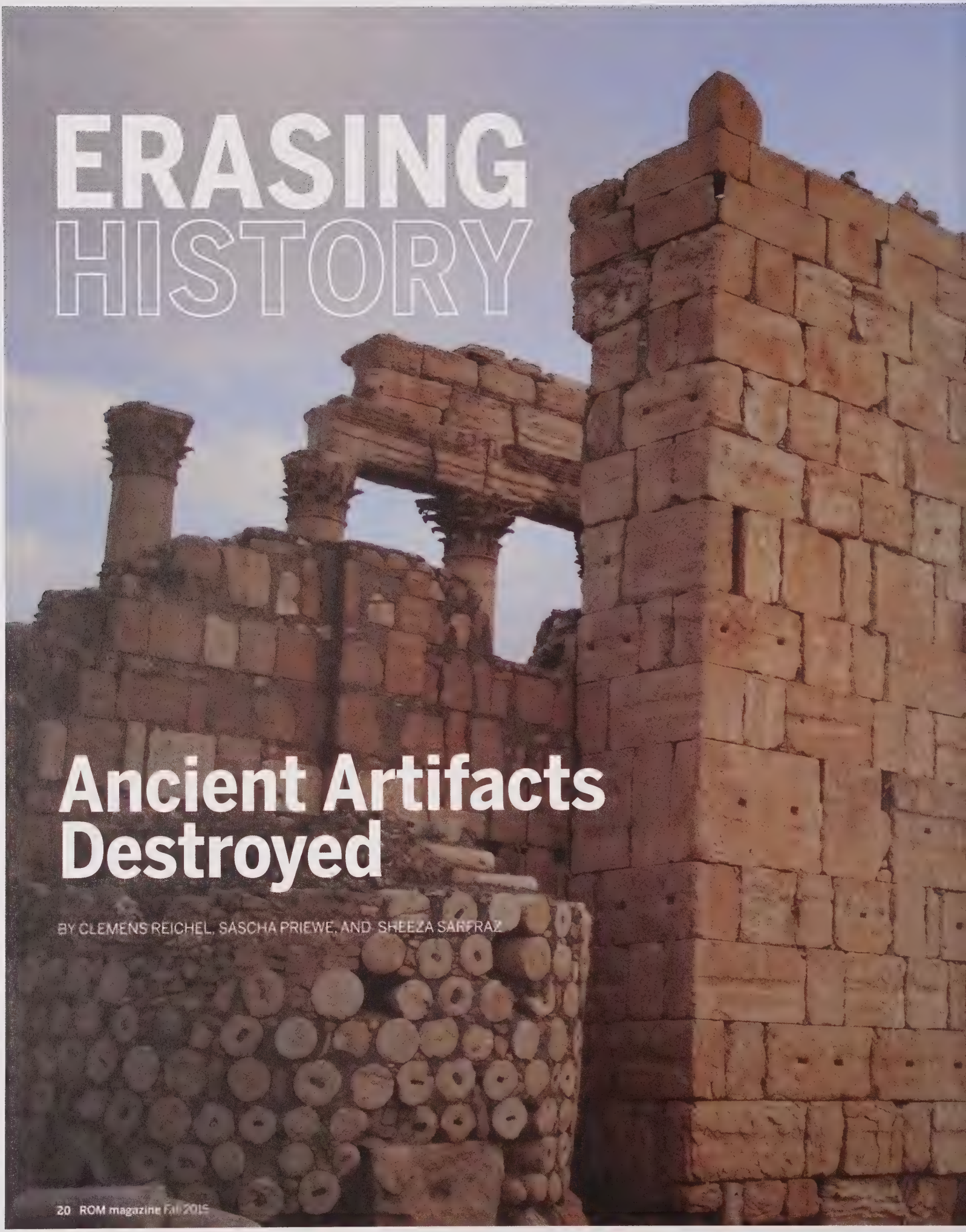
México

This exhibition is generously supported by the Burnham Brett Endowment for Textiles and Costume and the Gwendolyn Pritchard Fraser Endowment Fund.

ERASING HISTORY



Ancient Artifacts Destroyed

BY CLEMENS REICHEL, SASCHA PRIEWE, AND SHEEZA SARFRAZ

It has become a cliché to say that "history is written by the victors," but rarely does one note that it is not only written, but edited as well. Just as governments massage facts for the evening news and tightly control who speaks with whom when releasing information to the media, the lessons of history are changed and omitted at the pleasure of those holding the reins.

As far back as the reign of Thutmose the Third in ancient Egypt, and likely even before it, there are examples of artifacts being destroyed, not for the purpose of petty vandalism, but to eliminate names and faces from history—to erase the only records of a leader's existence. Statues and murals depicting Queen Hatshepsut, the fifth pharoah of the eighteenth dynasty of Egypt, were damaged or demolished to remove her history and therefore her influence from Egyptian life. The Aztecs under Itzcoatl destroyed the codices of the peoples they conquered and replaced them with state-sanctioned history, controlling societies by rewriting their history. One simple, streamlined narrative serves a despot better than nuance and variety.

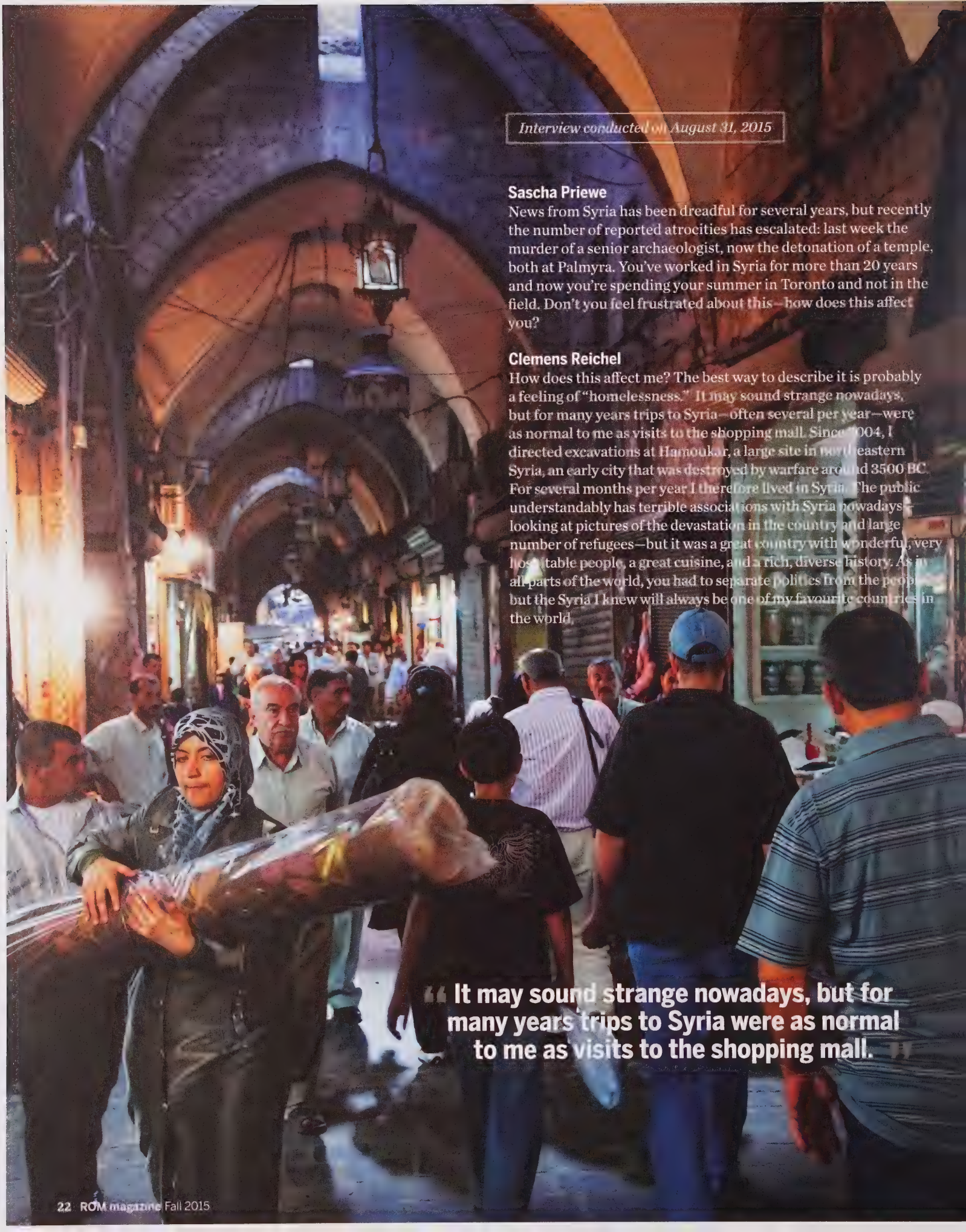
Headlines of the past decade have been littered with stories of the destruction of artifacts in political hot spots in Asia. Just as the Khmer Rouge had done in Cambodia decades before, the Taliban eradicated statues of the Buddha in Bamiyan, a UNESCO World Heritage Site, to erase the fingerprint of an Indian religion brought to Afghanistan long ago. Both Christian and Muslim forces have taken credit for the destruction of the Library of Alexandria, and both for the same reason: a war on "paganism." Acts of this nature are not meant to imply supremacy of one religion over another; they erase the undesired religion altogether rather so that there is no debate.

Today we see ISIS (the so-called Islamic State of Iraq and Syria) forces laying waste to the ancient Roman city of Palmyra and the ancient Assyrian capital city of Nimrud. Although some of this destruction is possibly wanton vandalism, ISIS has within it an organization committed to the destruction of Muslim and non-Muslim artifacts, called the "committee for the promotion of virtue and prevention of vice."

More than just an outcrop of extremist religious zealotry, the destruction of cultural heritage by ISIS clearly serves propogandist and ideological purposes. In this quest, ISIS's path of destruction has not spared Muslim targets either—most of the buildings attacked by them so far are Islamic shrines. Their endgame is one of thought control. ISIS is destroying priceless artifacts and treasures to cement control over the message. History has taught us that no regime can last forever, which deepens the tragedy of artifact destruction, since it will always be for naught.

ISIS is defacing historical architecture and artifacts and slaughtering anyone who stands in their way. Only a few days back, Syrian archaeologist Khaled al-Assad was murdered at their hands after he refused to reveal the location of artifacts excavated from Palmyra. As the global archaeological community deals with this new wave of cultural destruction in Palmyra, Sascha Priewe, Managing Director of Ancient Cultures, discusses the attacks on Palmyra with colleague Clemens Reichel, Associate Curator of Ancient Near East Culture at the ROM and Assistant Professor of Near and Middle Eastern Civilizations at the University of Toronto.

"Like the Khmer Rouge in Cambodia and the Taliban in Afghanistan, ISIS is destroying priceless artifacts and treasures to cement control over the message."



Interview conducted on August 31, 2015

Sascha Priewe
News from Syria has been dreadful for several years, but recently the number of reported atrocities has escalated: last week the murder of a senior archaeologist, now the detonation of a temple, both at Palmyra. You've worked in Syria for more than 20 years and now you're spending your summer in Toronto and not in the field. Don't you feel frustrated about this—how does this affect you?

Clemens Reichel
How does this affect me? The best way to describe it is probably a feeling of "homelessness." It may sound strange nowadays, but for many years trips to Syria—often several per year—were as normal to me as visits to the shopping mall. Since 2004, I directed excavations at Hamoukar, a large site in north-eastern Syria, an early city that was destroyed by warfare around 3500 BC. For several months per year I therefore lived in Syria. The public understandably has terrible associations with Syria nowadays—looking at pictures of the devastation in the country and large number of refugees—but it was a great country with wonderful, very hospitable people, a great cuisine, and a rich, diverse history. As in all parts of the world, you had to separate politics from the people, but the Syria I knew will always be one of my favourite countries in the world.

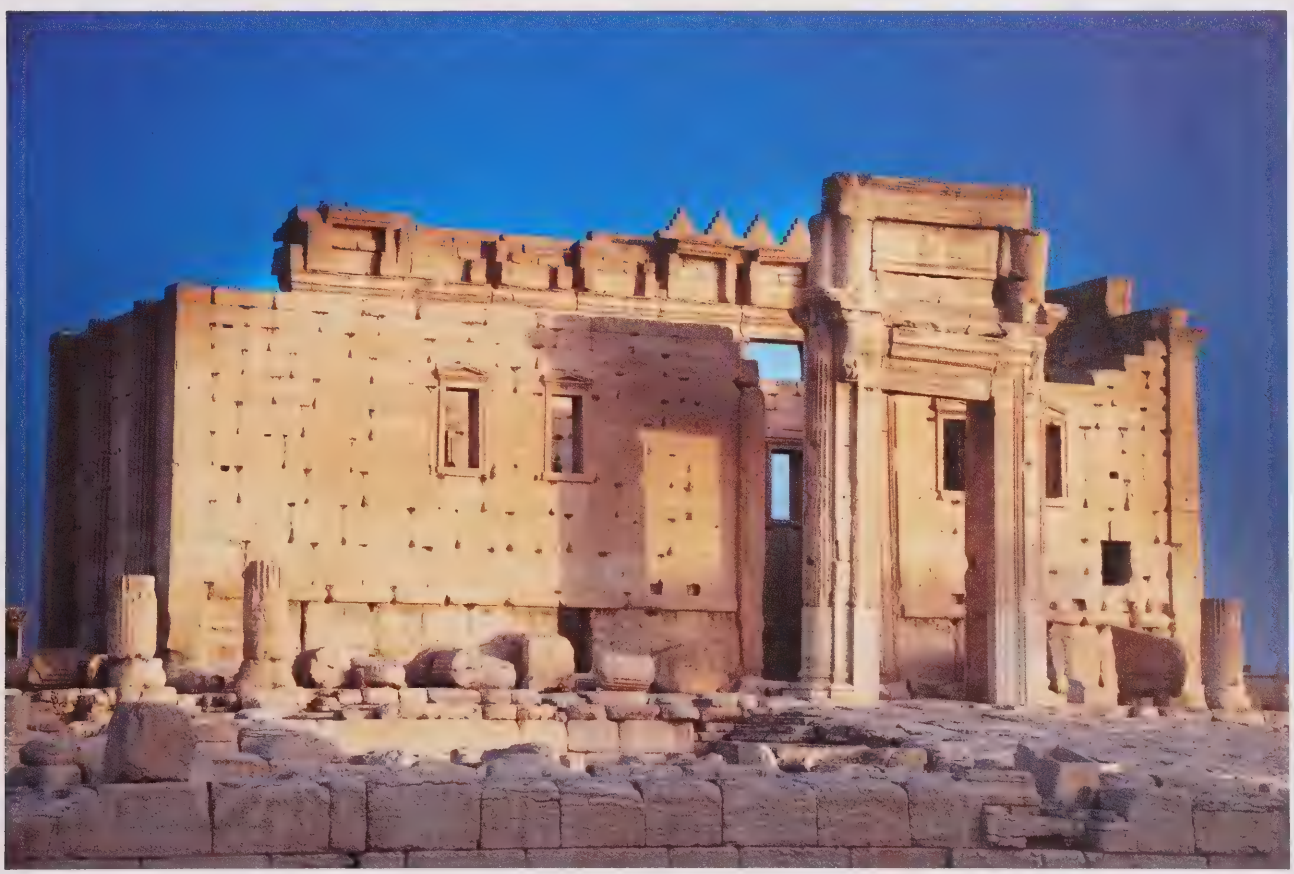
"It may sound strange nowadays, but for many years trips to Syria were as normal to me as visits to the shopping mall."

S.P. Palmyra, another world-famous archaeological and UNESCO World Heritage Site, has been in the news since last May after being occupied by ISIS. You visited Palmyra several times per year. What do you remember most fondly? How did you experience the site?

C.R. On our trips from Damascus to Hamoukar we almost inevitably stopped in Palmyra—and pretty much for the same reason as caravans that stopped there thousands of years ago. A natural oasis with springs, it is conveniently located in the middle of the desert that covers much of southern Syria. Unsurprisingly, it became a crossroad of several important trade routes between Central Asia and the Mediterranean that later became known as the Silk Road. It is trade that made Palmyra's wealth. Almost two millennia after Palmyra's demise you can still relive the site's geopolitical significance when you approach the modern city, called Tadmor. After a drive through monotonous desert landscape that lasts several hours (no matter from which direction you come), you suddenly see palm trees and gardens. If ever the significance of water can be appreciated, this is the place to do so. And then you see the ancient city with its shining colonnaded roads, temples, theatres, and markets. In midday they sparkle white in the heat. It is at sunrise or sunset, however, when it is doused in warm, orange sunlight, that the site looks the most impressive. A view of the site from the Ayyubid citadel (built circa 1230 AD) at these times of day—a favourite stop of mine when I guided tour groups through Syria—made it abundantly clear why many travellers continue to describe Palmyra as the most beautiful site in Syria and possibly the entire Middle East.

S.P. Recent news from Palmyra shows that the concern for the safety of the site, following its capture by ISIS, was more than justified. Why is Palmyra important? Why should we care about the site?

C.R. As I mentioned, the city's wealth was founded on trade. Historical sources mention its name early on in the first millennium BC. By the first century AD, it had fallen under Roman influence, retaining a significant degree of autonomy. Greeks and Romans lived side-by-side with local Palmyrans (whose language is closely related to Aramaic), creating a truly cosmopolitan society. But Palmyra grew into much more than a trade colony. By the third century AD, Palmyra felt strong enough to take on Rome. In 270–271, during the reign of the legendary Queen Zenobia, its troops conquered the Levant, Egypt, and much of Anatolia. The Roman reply



The magnificent Bel Temple, the most impressive among the Classical period temples in the Near East, may have been the most recent victim to ISIS's barbarism.

ISIS recruits destroying sculpture in the palace of the Assyrian king Ashurnasirpal II (883–858 BC) at Nimrud, Iraq (late March/early April, 2015).

was swift: by 272 Zenobia was defeated—legend has it that she was taken to Rome in golden chains. At first the city itself was saved; following another rebellion in 273, however, it was reduced to rubble by Roman troops.

When you visit the site nowadays you realize, of course, how much has escaped the Roman destruction and you are left with a first-hand impression of the multicultural nature of this city. Its colonnaded streets, senate, and tetrapylon seem very Roman, but its agora (market) and theatre remind you of Greek cities. Looking closely at the columns, you may recognize Roman, Greek, and Egyptian elements, but there is also a distinct local style. This mix is also reflected in religious architecture. The majestic Temple of Bel, the great overlord of the Aramaic pantheon, with its columns and peristyle, looks like a Greek temple at first. In its layout, however, it functions very much like a Mesopotamian temple. This is what makes Palmyra so fascinating—a diversity that reflects an openness and internationalism.

S.P. How much damage has ISIS done at Palmyra so far?

C.R. News reports released before and during the seizure of Palmyra by ISIS mentioned the fact that numerous items of sculpture from the Palmyra Museum might have been evacuated by the antiquity authorities. That is commendable, but we should not be misled—you cannot move the essence of a site into a museum. Palmyran art is rife with depictions of gods and humans, especially in temples and tombs. In a statement released after the capture of the city ISIS emphasized its focus on the destruction of sculptures that they considered "pagan" and "blasphemous," while claiming that the site and its buildings were going to be spared destruction. This is a "policy" which they applied during their devastation of Hatra, another World Heritage Site in northern Iraq, in March earlier this year. Well ... at Palmyra they certainly made true on the first part of their statement by destroying several sculptures, including a famous lion figure and several statues that already had been smuggled out of the city, but last week it also became clear that they won't spare the architecture. Their first target was the Baal Shamin Temple. Built during the second and third centuries AD, its graceful sanctuary at first looks like a typically Roman temple. A closer look, however, reveals uniquely Oriental traditions such as large windows in the site walls, and a mix of Corinthian and Egyptian tradition that highlight the cosmopolitan nature of the temple's architectural and religious tradition. Photographs disseminated through social media and satellites images show how a major explosion has reduced this temple to rubble. This atrocity, heinous was at it was, was apparently dwarfed over the weekend, when they reportedly blew up the Temple of Bel. This was the principle house of worship at Palmyra and one of the most impressive and widely recognized buildings of ancient Syria. I hate to use such graphic parallels, but to a Near Eastern archaeologist it feels as if the Dome of St. Peter in Rome had just been blown apart ... More than its military objectives, ISIS's campaign against ancient heritage has been very successful. Their vandalism at Hatra, Nimrud and now Palmyra has wiped out some of the key monuments in Syria and Iraq, and we have to anticipate that they are far from finished.

The fact that ISIS also sells artifacts looted from museums and archaeological sites highlights this group's schizophrenic

Remembering Palmyra

The alarm clock goes off at 4:20 a.m. Somewhat unwillingly, I leave the comfort of my warm bed in a cheap, yet comfortable, hotel in Palmyra, right at the outskirts of the archaeological site itself. At 4:30 it is still dark, a comfortable but slightly chilly morning, a reminder of the desert climate that dominates this area. Gulping down a cup of Turkish coffee in one of the few open restaurants, I set out to climb the Palmyra's citadel mount and watch the sunrise over the ancient ruins. Located on top of a dark, imposing mountain, the citadel, which is illuminated at night, appears like a guardian watching over the site. Wandering off into the dark, I soon realize the fallacy of this attempt. No signs mark the way and no light to help to avoid the pitfalls of the treacherous terrain, so I return to the site itself to watch the sunrise over its colonnaded street. At night, the ruins are brightly illuminated in a warm orange light that heightens the gracefulness of its architecture. No gate or fence separates the site from the modern city—in fact, a road, which until a few years ago was a main thoroughfare, still separates Palmyra's two most famous monuments, the Bel Temple and the Great Colonnade.

Leaving the Bel Temple—a graceful building during daytime but at night looking like a fortress with its surrounding outer wall—I turn toward the Great Colonnade, passing through its monumental archway. Easily one of the most recognizable monuments of Syria, reproduced in countless photographs, paintings, and on the 500 Syrian Pound bank note, it rises gracefully into the dark sky, illuminated from all sides. Walking around the ruins, I am trying to take in the strange sensation of being the only visitor to one of the most famous places of the Middle East. Clad in orange light, the columns with characteristic horizontal brackets that once held images of important figures—a typical Palmyra feature—look graceful, but also menacing. I feel the presence of Zenobia, the famous queen of Palmyra, having her kingdom back to herself ...

The first signs of dawn become visible on the horizon—time to set up the camera. Bracketing it against fragments of tumbled columns, I point against the great archway where the sun will soon rise. At this point, however, another celestial body still dominates the horizon: Venus, the unmistakable messenger that night will soon turn to day. Snapping picture after picture. I watch the dark sky turn blue, then pastel-coloured. For a short moment, as the sun makes its entrance and the nightly illuminations are dimmed, the ruins are clad in a dark red light, making it even harder to say at what time this site is at its most beautiful.

The sun is out—the city awakens as the increasing traffic noise unmistakably indicates. Soon the first buses will arrive, along with hoards of tourists. Once fed in one of the nearby coffee shops, they will descend upon the site. Time to pack up the camera—Zenobia has retreated.

—Clemens Reichel, October 2007

Morning sun illuminating the archway into the Great Colonnade, which transects the ancient city of Palmyra. Built around 175 AD it is one of the most recognized buildings in Syria.

Rebels with a Cause

When the Taliban took control of Afghanistan in 1996, they started destroying all artwork depicting life forms to enforce their particular ideologies of Islam. **Dr. Mohammad Yousof Asefi**, a medical doctor as well as an artist, heard about the slashing of his paintings in the presidential palace and worried about the fate of his art inside the foreign ministry. He proposed a plan to the officials: allow him to repair the paintings that hung inside the ministry. Using watercolours, Dr. Asefi painted over several oil paintings (his and others) inside various government buildings, right under the very noses of the Taliban officials. Methodically hiding lifeforms—at times even covering them with almost-comically ill-placed shrubbery—he saved more than 200 paintings, risking torture and even death. Once the Taliban regime was over, he methodically removed the watercolours to reveal the original artwork hidden underneath.

Morehshin Allahyari is an Iranian-born artist whose most recent project recreates artwork destroyed by ISIS's destructive rampage. Using 3-D printing, she produces sculptures that were demolished by ISIS forces. But her purpose isn't just to rebuild models of the sculptures: within each object is embedded a flash drive and a memory card that carries a database of information, including images and maps, about the object that was destroyed. Instructions are provided on how to access the information without destroying the sculptures. In her own way, Allahyari is re-writing the history ISIS tries so desperately to eradicate.

relationship with antiquities: it makes money by selling the very things that it has pledged to destroy.

S.P. ISIS is committing atrocities against people and many people were murdered in Palmyra following the fall of the city. In light of the tremendous loss of human life in the Syrian conflict, can we rightly lament the loss of a few ruins, a sentiment voiced regularly when ISIS's destructions make headlines?

C.R. They don't compare—and putting antiquities over human life is unconscionable and a suggestion that any decent human being will reject. But the question bothers me because of its materialistic undertones. Human life is irreplaceable, as is cultural heritage. You destroy it, it's gone—it won't grow back. I can't (and won't try to) put a dollar value on what has been lost in Palmyra or other sites in Syria or Iraq. What's the point if we can never replace it?

More to the point, the juxtaposition of "human life versus antiquities" trivializes the sacrifice of our Syrian and Iraqi colleagues who continue to do their work at great personal risk. As you hinted at earlier on, last week saw the brutal murder of 82-year-old Khaled al-Assad, an eminent Syrian archaeologist and expert on Palmyra, by ISIS. News outlets all over the world reported in graphic detail how, in spite of being tortured, he refused to give out information concerning the whereabouts of artifacts from the site. The murder of a respected colleague shakes me up, and I condemn this cowardly act in the strongest possible terms. At the same time I have to respect his courage and commitment—he didn't leave Palmyra, he stood up for his lifetime's work. Would any of us have been brave enough to do the same?

> **"We should be ready to engage in partnerships with local museums as time and logistics will (hopefully) allow us."**

S.P. Could you tell me about the ROM's connection to Palmyra?

C.R. The ROM has not directly worked at Palmyra, but we are fortunate to own three funerary stela, which are on display in the Joey and Toby Tanenbaum Gallery of Rome and the Near East. All three of them show images of the deceased—two women and a man—identified by name and family affiliation. Their attire—the garments worn as well as the jewellery—make it clear that these people were part of Palmyra's upper crust. A spindle whorl held by one of the women refers to gender-specific housework, but in her case may have been more symbolic.

If you visit the Palmyran sculpture, look at some of the videos in the portal installed next to them. In December 2010, I took a trip to Syria with ROM's New Media department. We were given a royal treatment by the antiquities authorities and allowed to film with

This tomb figure, which shows a reclining Palmyrean citizen, once decorated the top of a sarcophagus. Many tomb sculptures taken to the Palmyra museum were saved before the site was taken by ISIS. Those left on site, however, are at great risk of being destroyed.

Photo courtesy Clemens Reichel.

practically no impediment—not only in Palmyra, but also in many of the other sites in Syria that now are either destroyed or under threat. Back then, we had no idea what kind of a time capsule we were creating, but I am truly grateful that this footage exists.

S.P. Now that looted Syrian and Iraqi works of art have started hitting the US art market, the London art market, and are claimed to appear on eBay, what can individuals like you and I do about it?

C.R. Your first inclination might be to buy, and hence save, a piece of history. If you are thinking about it: don't! ISIS has looted several museums and is in the process of systematically stripping archaeological sites for antiquities to fund their activities. To put it bluntly: by buying such antiquities you would be funding ISIS. You don't want to do that, do you?

I am aware that many people are of the opinion that artifacts from troubled spots in the world such as Syria or Iraq are "better off" in Western museums. Just remember that such artifacts have already been looted—they have lost their archaeological context, and much data such as pottery, biological, botanical, and C14 samples that would have been useful to date and contextualize an artifact are irretrievably destroyed.

We also will never know if an artifact from the antiquities market is really genuine or not. At best, we can date and place it based on properly excavated commodities—so we hardly ever really learn anything from such pieces.

You can help to monitor the market: if you notice a suspicious looking artifact, report it to Customs or the police. These agencies can decide who to contact for a professional opinion.

S.P. What can museums do about this?

C.R. What I said about individuals also applies to museums: this is not the time to relax acquisition policies for the purported purpose of "safeguarding" cultural heritage. The actions by ISIS cannot be countered by museums returning to a nineteenth-century collections mentality.

We need to cooperate with our colleagues in Syria and Iraq irrespective of political creed, and we should be ready to engage in partnerships with local museums as time and logistics will (hopefully) allow us. Such partnerships could involve long-term loans of artifacts to a Western museum. Such programs could be mutually beneficial since the lending institution would not give up ownership, while the host institution would spend its resources on conservation and research as opposed to acquiring unprovenanced artifacts. o

Natural Wonders

WILDLIFE PHOTOGRAPHER OF THE YEAR – 2015!

This fall, the ROM will showcase the Canadian premiere of the 2015 Wildlife Photographer of the Year! From **November 21, 2015, to March 20, 2016**, we will showcase this internationally renowned photo competition—this year's show will feature 100 breathtaking images of nature and wildlife that surrounds us!

100
NEW AND SPECTACULAR PHOTOS!

EXHIBITION EVENTS

HESS LECTURE

NOVEMBER 21 • 1:30 P.M. TO 2:30 P.M.

Join Dr. Jayne Yack, Associate Professor and Graduate Chair at Carleton University, as she sheds light on the complex and fascinating acoustic landscape of insects and other invertebrates. Presented in partnership with the Toronto Entomological Association.

ROM SPEAKS

Undersea Images with David Doubilet and Jennifer Hayes

JANUARY 26 • 7:00 P.M.

Join WPY 2015 winner David Doubilet and scientist Jennifer Hayes for an evening of story-telling and phenomenal underwater marine photography. Doubilet has published over 70 stories in *National Geographic* and Hayes is a marine biologist studying sharks and seals.

ROM DAYTIME LECTURE

JANUARY 28 • 11:00 A.M. TO 12:00 P.M.

Join Dave Ireland, Managing Director, Centre of Biodiversity at the ROM with special guest (a winning WPY photographer!). This daytime adult lecture will demonstrate how ROM scientists are presenting their research in new and innovative ways through visual communication.

rom.on.ca/wpy

HOW DO I SEE IT?

Opens **November 21**

Member Preview
November 20 & 21

"Experience the fascinating beauty and power of our natural world!"

Photo: David Doubilet, Turtle Flight

Art and Culture in the Gulf

The ROM's Ann Webb interviews Holtby lecturer, Sheikha Hoor Al-Qasimi

BY ANN WEBB

Hoor Al-Qasimi at work in her eclectic Sharjah office.

In preparation for the upcoming Holtby Lecture on November 10th, the ROM's Managing Director of Contemporary Culture Ann Webb asked Sheikha Hoor Al-Qasimi about her art foundation and its role in Sharjah.

Ann Webb: You grew up in Sharjah, one of the seven emirates in the United Arab Emirates (UAE), in an environment where culture and heritage was valued over the development of skyscrapers. As President of the Sharjah Art Foundation, what is your vision for the role of art and culture in Sharjah?

Hoor Al-Qasimi: My vision is for the greater public in the UAE and the region to have a variety of cultural programs that can enrich their lives and help educate younger generations, from theatres to museum exhibitions and experimental film and music program. Also, to be a source of support for these artists, as there are very few institutions and grants available to help artists produce their work.

AW: What role does the Sharjah Art Foundation (SAF) play in the local community of Sharjah and internationally?

HAQ: Internationally, SAF and Sharjah have been a place where international curators have come to discover artists they may never have known before or see works which they have then decided to borrow or show for various exhibitions worldwide. An example of this is when Sharjah Art Museum organized an exhibition of Ibrahim El-Salahi's work with the Museum for African Art in New York. This exhibition was seen by Jessica Morgan on her visit to Sharjah and was then exhibited at Tate Modern. Another example is two of our Production Programme grant awardees (CAMP and Bani Abidi) previewed their works at *dOCUMENTA* (13).

AW: Who is the audience for the SAF's program?

HAQ: Our audience is varied. It's always difficult to answer this question, but I would say it includes the neighbourhood children who live close by and play outside our office, the shopkeepers who also have their shops near us, schools, university students, artists, architects, designers, teachers, families, officials and diplomats, tourists, and the international art crowd. I don't think I left anyone out!

AW: How do you navigate the presentation of contemporary art which, at times, can push boundaries, within a conservative culture?

HAQ: Sharjah is always described as conservative, but it is a very liberal place in terms of thoughts and ideas. Education plays a huge role—there are many places for debate, which include the cultural spaces and in the media. As with any government-funded entity, there are certain things we would not show in public spaces, which is the same for many institutions. There are always certain works that may push boundaries a little too far and it is up to us as curators to decide if this is always a good thing. I have said before when asked this question, you don't create debate when you offend people, you just lose your audience and then your role becomes futile and you are only catering to the international art crowd and the elite. Sharjah, and Sharjah Art Foundation in particular, has always been a very inclusive space about people of all walks of life and cultures. ○

SHEIKHA HOOR AL-QASIMI is President of the Sharjah Art Foundation.

10th ANNUAL EVA HOLTBY LECTURE ON CONTEMPORARY CULTURE • NOVEMBER 10TH

The Eva Holtby Lecture on Contemporary Culture brings powerful voices to the Museum to discuss provocative and engaging contemporary ideas. For more information on the lecture, visit rom.on.ca/whatson or @ROMContemporary

The Eva Holtby lecture is generously supported by the Holtby and Schury families

The Metal Shop

Where mounts are made for nearly everything on display at the ROM

WHAT IS IT?

Known as the "metal shop," this space is used to build mounts for Museum objects. ROM preparators have many workshops, including a plastics/ wood shop.

WHO ARE THE "PREPS"?

The preparators are a team of 12 who handle artwork, artifacts, and specimens for movement, installation, and mounting in galleries.

WHERE CAN YOU SEE THEIR WORK?

A lot of what the preps do is behind the scenes. Look at any case or platform in the Museum: if you see an object there, they've put it there, and if it's on a display mount, the preps would have made that mount.

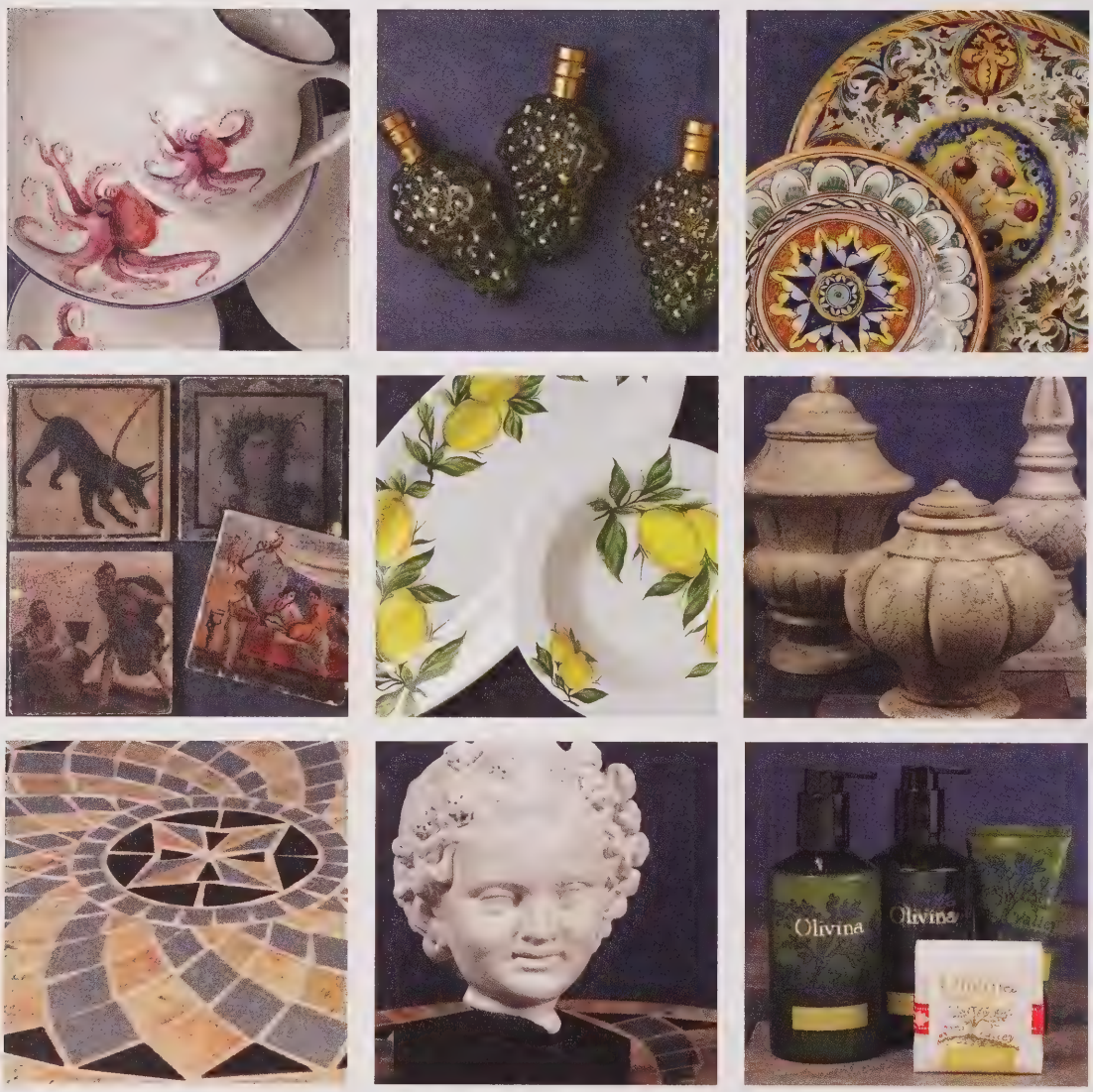
WHAT'S NEXT?

There are always multiple projects on the go. Myles Zarowny (pictured) is presently working on mounts for Invertebrate Palaeontology specimens that will be used in a preview of the Dawn of Early Life Gallery.

JOIN the Royal Patrons Circle (RPC) or Young Patrons Circle (YPC) to experience behind-the-scenes tours and enjoy exclusive access to the ROM's collections and curators! Visit **rom.on.ca/support** or call 416.586.8003 for more information.

Take Home the Beauty of Pompeii

For yourself, or to give as gifts — these exclusive pieces capture the beauty of Pompeii's ancient culture...



POMPEII HOME

Octopus Motif Pitcher $79.99; Dinner Plate $39.99; Bowl $29.99; Serving Bowl $89.99; Extra Virgin Olive Oil in Glass Grape $26.99; Majolica Siciliana Plate $159.99; Hand Painted Medici Family Crest Plate $399.99; Stone Mosaic Coaster Set $49.99; Lemon Motif Serving Platter $99.99; Serving Bowl $89.99; Volcanic Ash Stone Décor Piece $59.99; 10-inch Volcanic Ash Stone Décor Piece $39.99; 16-inch Volcanic Ash Stone Décor Piece $39.99; 24-inch Mosaic Ceramic Tile Bistro Table $259.99; ROM Reproduction of "Infant Head of Dionysus" $150; Olivina Meyer Lemon Hand & Body Lotion $29.99; Hand & Body Wash $29.99; Crème $19.99; Bath Soap $9.99;

SHOP ONLINE

Shop from home for ROM inspired books, jewellery, home decor, toys, and more at **shop.rom.on.ca**.

JEWELLERY OF POMPEII

1. Standing Lady Cameo Bracelet in Red Bronze $279.99; 2. Labradorite Greek Key Necklace $399.99; 3. Minoan Charm Earrings $89.99; 4. Red Bronze Three Charm Bracelet $124.99; 5. Red Bronze Suspended Cameo Necklace $149.99; 6. Brass Meander Key Hoop Earrings $39.99; 7. Three Charm Beaded Necklace $219.99; 8. Moonstone Bracelet with Greek Key Motif $349.99; 9. Double Serpent Brooch $49.99; 10. Red Bronze Athena Intaglio Ring $99.99; 11. Fair Trade Replica Coin Earrings $34.99; 12. Brass Reproduction Laurel Headpiece $119.99; 13. Goddess Charm Earrings $124.99; 14. Julius Caesar Brooch $49.99; 15. Glass Cameo with Red Bronze Chain Necklace $289.99; 16. Indigo Dandelion Scarf $39.99; 17. Snake Armband $19.99

SPECIAL MEMBERS 20% OFF SHOPPING DAY NOV 20-22!*

* on regular priced merchandise some exclusions apply

Fall Adventures...

Streetscapes, bus tours, and our colourful East coast

WALK

ROMwalks

Join fellow Museum Members and see Toronto in a whole new light!

HURON STREET

OCTOBER 28 • 1:30 P.M.

FEBRUARY 24 • 1:30 P.M.

Visit the Gothic Revival Bloor Street United Church to see its Great South Window, a mid-twentieth-century stained glass by Celtic Studio. Then walk down Huron Street to St. Thomas's Church, designed in Arts & Crafts style by renowned Toronto architect Eden Smith to view examples of stained glass design, including ones from the Bromsgrove Guild.

Meeting place: Bloor Street United Church, 300 Bloor Street West (at Huron), red front doors

TRINITY COLLEGE

NOVEMBER 18 • 1:30 P.M.

MARCH 30 • 1:30 P.M.

Discover carvings by Charles Adamson, Emmanuel Hahn, and Jacobine Jones, heraldic ornament by A. Scott Carter, seventeenth-century Flemish tapestry by Abraham Van Diepenbeeck, paintings by Sir Edmund Wyly Grier, and glass by Yvonne Williams and E. Liddall Armitage. View a unique perpendicular Gothic chapel by Sir Giles Gilbert Scott.

Meeting place: Trinity College, 6 Hoskin Avenue, front door

INSTRUMENTS AND ARCHITECTURE

DECEMBER 19 • 1:30 P.M.

JANUARY 30 • 1:30 P.M.

Explore architecture with a musical theme as we tour parts of the ROM, The Royal Conservatory of Music, and the Faculty of Music at the University of Toronto, while viewing period instruments.

Meeting place: ROM Rotunda, Level 1

Register NOW at **rom.on.ca/members/events**. Space is limited.

Look for the purple umbrella at the meeting sites.

RIDE

ROMbus

Plan a fun and interesting road-trip to enjoy with other Museum Members!

ADORNMENT

DECEMBER 3, 2015 • 8:30 A.M.–5:30 P.M.

ROM curators will guide you on a virtual world tour to discover the ways in which men and women adorned themselves—in ancient Egypt, Africa, China, North America, and places in between. It is a long history—from feathers to bone to modern jewellery. We will look at ornamentation of all types worn to enhance the beauty or status of the wearer. This trip includes a festive lunch.

To register, contact **programs@rom.on.ca** or call 416.586.5797.

Members Price $100

FLY

NEWFOUNDLAND
JUNE 19 TO 29, 2016

Starting from $3,795 USD*

See Newfoundland as the early explorers did—from the sea. From whales and icebergs to history, art and music aboard Adventure Canada's *Ocean Endeavour.* While on board, resource staff, including the ROM's Mark Engstrom, will share their knowledge of Newfoundland's natural history and cultural richness.

For more information on upcoming trips, contact ROMtravel at 416.586.8034, email **travel@rom.on.ca**, or visit **rom.on.ca/travel**.

*Airfare and discovery fee not included.

Mexico: Textile Traditions
February 3 to 14, 2016
Chloë Sayer, Guest Curator of *¡Viva México! Clothing and Culture* at the ROM, will share her knowledge of the arts and culture of Mexico.

Pompeii & the Gulf of Naples
April 16 to 24, 2016
Visit Pompeii and other Roman and Greek sites around the Gulf of Naples. Archaeologist Trinity Jackman's knowledge will enhance your tour.

North India
January 2017
Join other ROM travellers as your tour explores the region's diverse, multifaceted-culture with its colourful history and traditions.

Japan
March 2017
From ultra-modern to Medieval and mysterious, this tour of Japan will be a delight for the palate and the curious traveller's eye.

Photos: Francois, Newfoundland, courtesy Dennis Minty. Taj Mahal, Wikimedia Commons. Itsukushima Gate, Wikimedia Commons.

Special Events, Offers, and More ...

Make the most of your ROM Membership!

UPCOMING MEMBER PREVIEW

WILDLIFE PHOTOGRAPHER OF THE YEAR

NOVEMBER 20-21

Go to **rom.on.ca/members** for more information.

MEMBER HOLIDAY SHOPPING WEEKEND

NOVEMBER 20-22

Do all your holiday shopping at the annual ROM Member Shopping Weekend. Members receive a special discount of 20 percent off all regularly-priced merchandise in ROM Boutique, ROMKids Store, and the Pompeii Exhibition Boutique. Present a valid ROM Membership card at time of purchase to receive your discount.

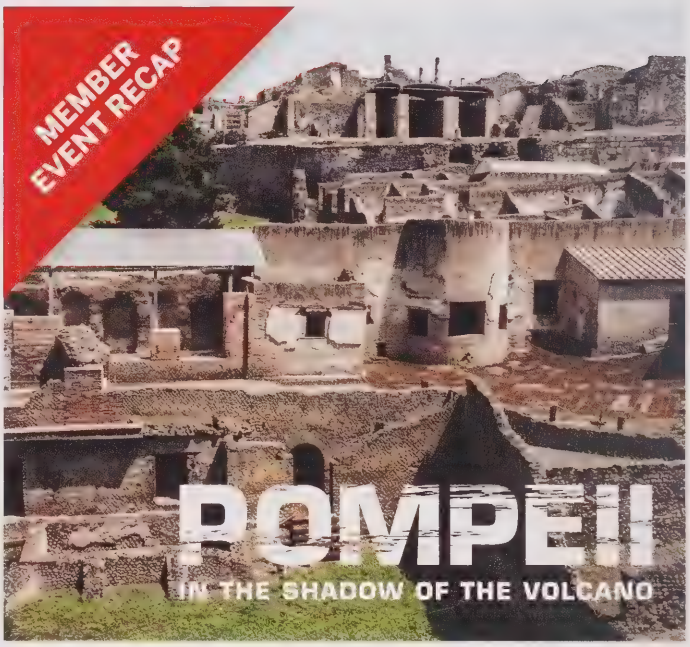
FAMILY HOLIDAY GATHERING!

SUNDAY, DECEMBER 6 • 10:00 A.M. TO 2:00 P.M.

Celebrate the season at our annual Family Holiday Gathering with fun crafts and activities, festive treats, and a visit with Santa. You will receive your invitation by email in November notifying you that it is time to register. This event is an exclusive event for Museum Circle, Director's Circle, Royal Patrons Circle, Young Patrons Circle, and Discovery Circle Members. Not currently a Museum Circle or Director's Circle Member? Upgrade today by calling 416.586.5700 or email **membership@rom.on.ca**

FACT OR FICTION • NOVEMBER 2, 2015

Become a Royal Patrons Circle or Young Patrons Circle Member to attend this all-time favourite guessing game with curators!



MEMBER PREVIEW: POMPEII

Spotted! Mark Engstrom, interim director and CEO, in official Roman uniform—the toga! Engstrom kicked off the Museum's exclusive Member lecture on *The Making of Pompeii*. Hosted in the Signy and Cléophée Eaton Theatre, seats were filled with Members eager to be the first to get an extraordinary look at an ordinary town. The Member lecture was led by exhibition curators Paul Denis, Katherine Dunnell, and Kate Cooper, who revealed *Pompeii: In the Shadow of the Volcano* and who created this spectacular exhibition.

Did you know the ROM's Garfield Weston Exhibition Hall is five metres tall? Coincidently, the city of Pompeii was buried under five metres of volcanic material. "The next time you visit, look up!" shares Katherine Dunnell, ROM Mineralogy Technician. Standing in a space that is five metres tall will help exhibit visitors comprehend the tremendous amount of volcanic material that came from Mount Vesuvius.

Pompeii: In the Shadow of the Volcano is open until January 3, 2016. As always, free entry for ROM Members.

Get social with us! Share your Member experience of Pompeii, using #ROMmembers on Twitter.

MEMBER PROFILE

A LIFETIME OF LEARNING CONTINUES AT THE ROM FOR **EMAD GIRGIS**

Q: How often to you visit the ROM?

A: I try to visit the ROM every few months—I own a restaurant, so I come in at quieter times.

Q: What inspired your first visit to the ROM?

A: My daughter has been a huge fan of the ROM for a very long time. She would always talk about the Museum and her aspirations to work there one day. Her fondness for the Museum became an integral part of our family's downtime—we would spend weekends and holidays at the ROM learning about her favourite galleries until eventually we each had our own favourites. She has taught me to look beyond the objects and to explore the many narratives they share. I love the ROM and I can't thank my daughter enough for the introduction.

Q: If you could bring one person to visit the ROM with you, who would it be?

A: I would definitely bring my younger brother, Awny. Awny and I immigrated to Canada from Egypt together over 25 years ago—we come from a family of 11. I'm really lucky to have my brother here with me and I enjoy spending time with him. We also share similar interests; I know that he would enjoy the ROM just as much as I do.

Q: What word would you use to describe your experience at the ROM?

A: Interesting! I always leave the Museum having learned something new.

Q: What is the greatest benefit to your ROM Membership?

A: Unlimited access to all galleries—including special exhibitions like *Wildlife Photographer of the Year*. I also really enjoy the member access on ROM programming.

Q: Are there specific places in the Museum you find yourself coming back to visit?

A: The little theatre tucked away in the First Nations Gallery is my go-to place. There is something about the dark, quiet space that I really enjoy. The silent film on loop is also something I look forward to watching on my visits.

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* Offer expires December 31, 2015.

Emad Girgis in the Daphne Cockwell Gallery of Canada: First Peoples

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SMALL MOMENTS SERIOUS IMPACT

It's often the smallest moments that have the greatest impact. Walking through the ROM recently, I came across one of our educators wearing a set of bright blue butterfly wings, discussing biodiversity with a group of schoolchildren. His passion for our changing natural world was palpable and his audience of a dozen or so six-year-olds was completely enraptured.

Flashes like these—small but mighty—happen daily at the ROM and are made possible by the generosity of our visitors, donors, members, patrons, and corporate partners. It's one of the reasons why we are so grateful for your remarkable support of the Love the ROM Campaign, which raised over $20M to help animate our Centres of Discovery, launch the new Welcome Project, and support the future Dawn of Life Gallery.

The impact of your donations is already being felt around the ROM. New Managing Directors are bringing our Centres of Discovery to life with fresh ideas, and several new post doctoral students are pursuing their studies with assistance from the ROM's leading researchers and world-class collections. Thanks to you, we are also ready to break ground on the Welcome Project in January 2016, creating a lively and meaningful urban green space that will nurture ecological consciousness and build community in our city.

The Welcome Project will not only create beautiful biodiversity gardens and an outdoor performance space on the ROM Plaza, it will also introduce public meeting spaces (where you can sit and enjoy a great cup of coffee) and outdoor programs to educate and inspire children. For example, we're planning to grow milkweed as a vital food source for Monarch butterflies, whose numbers are dwindling at a rapid rate. The ROM's research and conservation efforts will spill out onto Bloor Street, and we can't wait to experience it with you next summer.

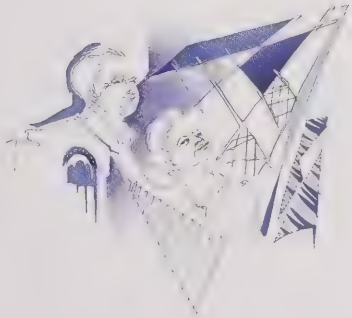
Fundraising continues for this exciting project and for the extraordinary Dawn of Life Gallery that will showcase spectacular fossils from across Canada and tell the story of our earliest beginnings—from the first sparks of life three billion years ago to the appearance of dinosaurs and mammals 200 million years ago. For a preview of this visionary new gallery, I encourage you to visit our temporary pop-up space later this month on the second floor for a small (but mighty!) taste of what's to come at the Museum.

Thank you for continuing to love and support the ROM.

Susan

SUSAN HORVATH
PRESIDENT & CEO
RPC FELLOW

Photo of Susan Horvath by George Whiteside.



MUSEUM MEMORIES

Donors who generously contributed $1,000 or more to the Love the ROM Campaign were invited to share their memories in a commemorative ROM Centennial publication, which will become a permanent part of the Museum's collections. We look forward to sharing this beautiful book with you this fall.

GET IN TOUCH!

t: 416.586.8055
e: susanh@rom.on.ca
w: rom.on.ca/support
@SusanH_ROM

FORD AND PERONI ENGAGE MILLENNIALS AT FRIDAY NIGHT LIVE

Launched in 2012, Friday Night Live (FNL) has grown to become Toronto's most unique social destination. Each week, thousands of millennials take over Canada's world museum to enjoy curated, cutting-edge ROM content and eclectic eats, drinks, DJs, dancing, and live music. This popular event series runs for eight weeks during the summer and fall months. The ROM is proud to partner with Ford of Canada and Peroni Nastro Azzurro to create innovative and original activations that speak to this key audience.

As Presenting Sponsor for two consecutive years, Ford has engaged thousands of young urbanites through fun, fresh, and creative activations. The sleek and sophisticated Ford Lounge is a go-to destination for FNL-ers, in a prime space by the main stage and dance floor. A large digital wall displays social media content and selfies by guests, with a Ford vehicle at the centre of it all. Brand ambassadors interact with partygoers and curious passersby on the busy ROM Plaza, where a Ford car is also prominently displayed each week.

FNL revellers also flock to the stylish Peroni Nastro Azzurro Bar in the Peter F. Bronfman Hall, next to live performances. As Supporting Sponsor and exclusive beer supplier of FNL for four seasons, Peroni's dedicated bar is an event hot spot. Last season, guests were treated to a crowd-pleasing sneak peek of the exhibition *Peroni Nastro Azzurro celebrates The Visionary World of Vogue Italia*, featuring rare video footage of fashion icons, designers, models, and muses.

The next highly-anticipated season of #FNLROM kicks off on October 2, 2015, with nine weeks of cool cultural programming and entertainment, plus a bonus FNL in February 2016. To learn more about corporate sponsorship opportunities for ROM Friday Night Live, contact Sara Zerehi at **saraz@rom.on.ca** or 416.586.5546.

ROM FRIDAY NIGHT LIVE
PRESENTED BY Ford

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RUN FOR THE ROM

SUNDAY, OCTOBER 18, 2015

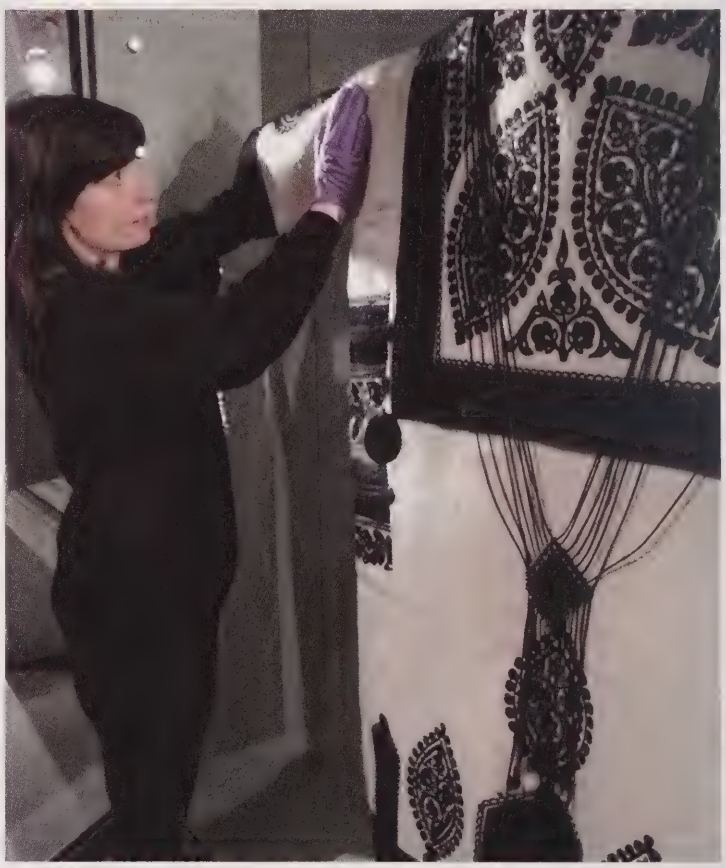
Join ROM staff and friends for the Scotiabank Toronto Waterfront Marathon. Run or walk with us in the 5 km, half marathon or full marathon in support of the Museum. Funds raised will benefit the ROM's highest priorities that help bring our world-class collections, cutting-edge research and public programs to life. All participants will receive a special gift!

To register or sponsor a ROM participant, please visit **rom.on.ca/run** or contact Katie McMullen at 416.586.5772 or katiemc@rom.on.ca.

R•M

FRIENDS OF THE ROM

For more than five decades, ROM Friends groups have brought people together to engage with their passions, making a meaningful impact on the Museum and inspiring its community of supporters. By making a small annual donation, you can become a part of ROM Friends of Ancient Egypt, Friends of the Canadian Collections, Friends of Contemporary Culture, Friends of East Asia, ROM Friends of Palaeontology, Friends of South Asia, or Friends of Textiles and Costume. ROM Friends enjoy regular updates on their area of interest and special access to curators and experts. "With the help of volunteers and curators, ROM Friends raise awareness and understanding of the incredible stories behind the Museum's collections," says Susan Horvath, President & CEO, ROM Governors. "Friends groups have made extremely important contributions to the ROM's research, collections, and conservation, leaving legacies for future generations."



With the help of volunteers and curators, ROM Friends raise awareness and understanding of the incredible stories behind the Museum's collections

Formed over three decades ago, Friends of East Asia have a special interest in the ROM's Chinese, Japanese, and Korean sections. Friends of East Asia partners with the Bishop White Committee, the very first ROM Friends group, loyal ROM supporters for over 50 years. With donations from ROM Members and the public, this ROM Friends group sustains the East Asia Endowment Fund, which has endowed two ROM curatorships, created a fellowship in Japanese art and culture, and funded the H.H. Levy Gallery.

Are you a fossil fanatic? Want to support the ROM's Canadian or Textiles collections?
To learn more about how you can explore your passions and have a positive impact on the Museum by becoming a ROM Friend, visit rom.on.ca/friends or call 416.586.5778.

ON SALE NOW!

Members' Price: $4.50

Pick up your copy of the official *Pompeii* exhibition guide at the ROM or online at **rom.on.ca/pompeii**

Also available as an E-book at:

Indigo BARNES & NOBLE amazon Available at amazon Google play Available on iTunes

Exhibit A

"Deep in the collective consciousness, which he guards with his movable fortress of an exterior, is the memory of the millennia.... He knows the howl of the winds of change, and he takes the eternal unfolding of the universe in his slow, lumbering stride." **DAVID MACFARLANE** Writer

Bull the White Rhino, *Ceratotherium simum*, Born 1963 in South Africa, Photo: Takumi Furuichi

In February 2008, the Toronto Zoo called. Bull, the zoo's 45-year-old white rhino, was suffering from arthritis and was having trouble standing. It was clear his end was near. Bull died shorlty thereafter. A taxidermist who specializes in large animals worked overtime to prepare this magnificent specimen for his reveal during the opening of the Schad Gallery of Biodiversity in May 2009. See more ROM objects in *Every Object Has a Story*, Members price $26.95. Visit the ROM Boutique or go to **shop.rom.on.ca** to purchase.

POMPEII

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Wildlife Photographer of the Year is developed and produced by the Natural History Museum, London.

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